



# **Dyslexia Handbook: A guide to teaching ALL students to read through structured literacy**



The State of New Mexico  
New Mexico Public Education Department

Teaching, Learning and Assessment Division of Curriculum & Instruction

## **New Mexico Dyslexia Handbook**

Issued 2020

Michelle Lujan Grisham Governor of New Mexico

Ryan Stewart Ed.L.D. Secretary of Education

Dr. Gwen Perea Warniment  
Deputy Secretary of Teaching, Learning and Assessment

Jacqueline Costales  
Division Director of Curriculum and Instruction

### **Copyright Notice**

This guide is copyright free, so no permission is needed to cite or reproduce it for non-profit purposes. If material from it is included in another non-profit publication, cite as follows: New Mexico Public Education Department. (2020). *New Mexico Dyslexia Handbook*, NM, Santa Fe: NMPED.

### **Notes**

This document is available on the NMPED Literacy and Humanities website at <https://webnew.ped.state.nm.us/bureaus/literacy-humanities/>

**This document is intended to be Americans with Disabilities Act (ADA) compliant in its entirety. Should a reader encounter any difficulties in accessing the document, please contact the PED to assist in accessing information.**

# Contents

## Addressing Dyslexia and the Benefits of Evidence-Based Instruction for All Students

<b>Introduction</b> .....	<b>1</b>
<b>Consequences of Delayed Reading Intervention</b> .....	<b>2</b>
<b>The Science of Reading</b> .....	<b>2</b>
Reading and the Brain.....	4
Structured Literacy.....	4
<b>Characteristics of Dyslexia</b> .....	<b>6</b>
Phonological Processing .....	6
Link to Achievement .....	7
<b>Identifying Students at Risk for Dyslexia</b> .....	<b>7</b>
Screening for Dyslexia.....	8
<b>Treating Dyslexia</b> .....	<b>8</b>
Early, Intense, Evidence-Based .....	9
Considerations for English Learners.....	10
Other Accommodations and Supports ...	10
<b>Appendices</b>	
Appendix A: MLSS Process from Screening to Intervention	12
Appendix B: School or District Literacy Template Plan	13
Appendix C: PED List of Approved Screeners	15
Appendix D: International Dyslexia Association Knowledge and Practice Standards .....	16
<b>Glossary</b> .....	<b>42</b>
<b>Resources and References</b> .....	<b>44</b>



# Addressing Dyslexia and the Benefits of Evidence-Based Instruction for All Students

From kindergarten to grade three, children focus on reading acquisition, learning to read. From fourth grade on, children’s focus shifts to the application of these skills when reading and analyzing complex text, reading to learn. A 2011 report by the Annie E. Casey Foundation found that students who were not proficient readers by the end of grade three were four times more likely to drop out before graduation. Ensuring all students acquire critically needed early literacy skills by the end of third grade is paramount.

We have a fundamental obligation to ensure that all students in New Mexico receive effective, evidence-based reading instruction from kindergarten through grade three, and beyond for struggling readers. Extensive research over the last 40 years has demonstrated that explicit, systematic, evidence-based instruction, grounded solidly in reading science, today referred to as structured literacy, is the most effective way to ensure all learners have a strong foundation for literacy. Nothing is more essential than highly effective reading instruction.

In March, 2019, the New Mexico Legislature passed Senate Bill 398 which was signed into law by the Governor on April 4, 2019. That law is now codified as Section 22-13-32 NMSA

1978. The new law requires all first graders to be screened for characteristics of dyslexia. A student demonstrating such characteristics must receive appropriate classroom interventions or be referred to a student assistant team (“SAT”). The purpose of this screening is to make an early

identification of students who are struggling to learn to read before they fail. These students must then receive appropriate, evidence-based intervention in the general education setting through the Multi-Layered System of Supports (MLSS) process. Research conducted in the state of Connecticut demonstrates that screening and early intervention resulted in up to a 66 percent drop in referrals to special education after third grade (Gillis, 2018). But the law does not stop with early identification. It also requires all public schools to develop and implement a literacy professional development plan. That plan must include a detailed framework for structured literacy training by a licensed and accredited or credentialed teacher preparation provider for all elementary school teachers. Additionally, the plan must provide for training in evidence-based reading intervention for reading interventionists, as well as for special education teachers working with students who demonstrate characteristics of dyslexia or are diagnosed with dyslexia.

***“Reading is the fundamental skill upon which all formal education depends. Research now shows that a child who doesn’t learn the reading basics early is unlikely to learn them at all. Any child who doesn’t learn to read early and well will not easily learn other skills and knowledge, and is unlikely to flourish in school or in life.”***

Louisa Moats, EdD

## District and charter school requirements and responsibilities related to [22-13-32 NMSA 1978](#):

1. Screen all first graders for dyslexia;
2. Provide appropriate classroom interventions or refer to a student assistance team a student demonstrating characteristics of dyslexia and who is having difficulty learning to read, write, spell, understand spoken language or express thoughts clearly;
3. Provide timely, appropriate, systematic, scientific, evidence-based interventions prescribed by the student assistance team;
4. Provide progress monitoring to determine the student's response or lack of response;
5. Develop and implement a literacy professional development plan that includes
  - A detailed framework for structured literacy training by a licensed and accredited or credentialed teacher preparation provider for all elementary school teachers
  - Training in evidence-based reading intervention for reading interventionists and special education teachers working with students demonstrating characteristics of dyslexia or diagnosed with dyslexia
6. Train school administrators and teachers who teach reading to implement appropriate evidence-based reading interventions;
7. Train special education teachers to provide structured literacy training for students who are iden-

***“By the end of first grade, children having difficulty learning to read begin to feel less positive about themselves than when they started school. As we follow children through elementary and middle school years, self-esteem and motivation to learn to read decline even further. In the majority of cases the students are deprived of the ability to learn about literature, science, mathematics, history and social studies because they cannot read grade level texts.”***

**G. Reid Lyon, PhD**

“Reading Disabilities: Why Do Some Children Have Difficulty Learning to Read? What Can Be Done About It?” *Perspectives*, Spring 2003

tified with dyslexia as a specific learning disability and who are eligible for special education services.

## Consequences of Delayed Reading Intervention

### **Failure in academics leads to low self-esteem.**

Children who are poor readers at the end of first grade almost never acquire average-level reading skills by the end of elementary school (Francis, Shaywitz, Stuebing, Shaywitz, and Fletcher, 1996; Juel, 1988; Shaywitz et al., 1999; Torgesen and Burgess, 1998).

### **Graduation rates and life outcomes are affected.**

A study conducted by the Annie E. Casey Foundation found that reading proficiency by third grade is the most important predictor of high school graduation and career success (2011).

Low reading achievement more than any other factor, is the root cause of chronically low-performing schools (Moats, 1999). In 2018, only one-fourth of children in New Mexico scored proficient or above in reading skills for fourth and eighth grade according to the National Assessment of Educational Progress (“[The Nations Report Card](#),” 2019).

### **Low socioeconomic status and marginalization of low-performing groups continue.**

The social and economic costs of illiteracy is extremely high: The U.S. Department of Labor estimates illiteracy costs American businesses about \$225 billion a year in lost productivity (Somers, 2006).

Up to 90 percent of individuals incarcerated nationally in state and county prison systems are functionally illiterate, and studies have demonstrated that up to 65 percent of incarcerated individuals have one or more learning disabilities (“[Literacy Statistics](#),” 2020).

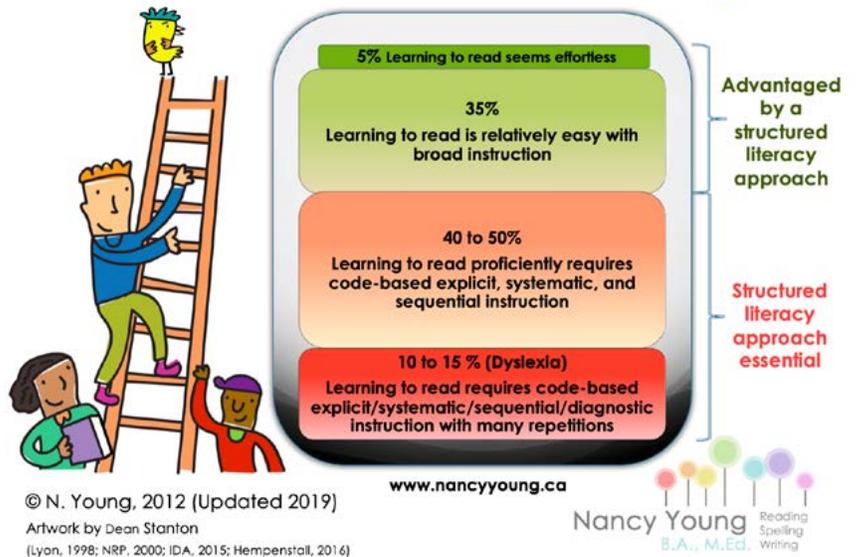
## The Science of Reading

Most students do not learn to read naturally. In fact, research demonstrates while 30-35 percent of students learn to read relatively easily with broad instruction, 40-50 percent of students require an explicit, systematic, code-based approach to reading instruction, and 15-20 percent of students have a reading disorder, such as dyslexia, and will most likely not become fluent readers without an explic-

it, systematic, code-based approach (Young, 2012). Structured literacy is an approach to reading instruction grounded in reading science designed to ensure that all students are given a solid foundation in reading and writing.

Learning to speak is a natural process that has evolved over thousands of years. Time has allowed the human brain to become “hard-wired” for listening and speaking, and as long as children are exposed to the sounds and words of their language, they, too, will begin the natural process of learning to speak. As children have more interactions with their caregivers, their words turn into phrases and their phrases into sentences. By the time they begin attending school, many have acquired a vocabulary of thousands of words. Parents and other caregivers did not sit down and explain in any kind of detail the sounds that came together to make words, nor did they have to explain the structure of proper sentences. The entire process just happened.

## The Ladder of Reading



Conversely, alphabetic writing is a relatively new human invention just 5,000 years old (Moats, 2019). In the scope of human evolution, writing is a very recent accomplishment, meaning human brains are not yet “hard-wired” for a natural acquisition of reading and writing (Carreker, 2020). The science of reading has demonstrated that learning to read and write is not a natural act (Carreker, 2020). For children to learn how to read, teachers must provide instruction that is explicit, systematic, and cumulative (Castles, Rastle, & Nation, 2018; Gough & Hillinger, 1980; National Institute of Child Health and Human Development, 2000; Seidenberg, 2017).

The past 40 years has yielded an accumulation of research, conducted using high quality methodologies, into the process of learning to read (Stewart, 2020; Reyna, 2004; Seidenberg, 2017). Insights gathered from developmental psychology, cognitive neuropsychology, developmental linguistics, and educational intervention research have identified effective instructional practices that, when delivered systematically and explicitly, can nearly guarantee every child can learn to read (Stewart, 2020). Simply stated, because the science of reading is not an opinion, nor is it a philosophical belief, it should be trusted to inform the why, what, and how of reading instruction (Carreker, 2020).

The science of reading confirms the premise that oral language development is the foundation for the development of reading and writing skills.

## Oral Language Development Leads to Reading and Writing Development



(Miller & Powell, 2020)

## Reading and the Brain

Thanks to developments in neuroscience and technology, researchers are now able to target key learning centers in the brain and identify the areas and neural pathways that the brain employs for reading. Reading is a complex task from the beginning, and the sounds infants encounter set language acquisition skills in motion by providing a structure for language-based communication. The brain is learning the rules of language that will later generalize into reading. By the time a child is ready to read effectively, the brain has coordinated sounds to language and now is prepared to coordinate language to reading and reading to comprehension (Burns, 2017).

Many parts of the brain work together to be able to read.

- The temporal lobe (Occipito-temporal) is responsible for phonological awareness and decoding and discriminating sounds.
- The frontal lobe (Broca's area) is responsible for speech production, reading fluency, grammatical usage, and comprehension, making it possible to understand simple and complex grammar in our native language.
- The angular gyrus (Parieto-temporal) is responsible for linking different parts of the brain together to execute the action of reading.

When a student encounters a word he does not know, he uses the word analysis part of the brain to sound out the word. When a student reads a word he knows, he uses the word form area. These two areas are in the left hemisphere of a typical reader. When a student reads aloud, he uses Broca's area. A struggling reader also uses this area for phonology.

Dyslexic readers have more activation in the right hemisphere and the left frontal area than readers without a reading disability; therefore, they have less activation in the areas of the left hemisphere important for skilled, fluent reading. In essence, the dyslexic reader uses only one part of the brain while a proficient reader uses all

three. While children with dyslexia can develop into accurate readers, their reading of grade-level text is often still slow and labored (Neuhaus Education Center, 2019).

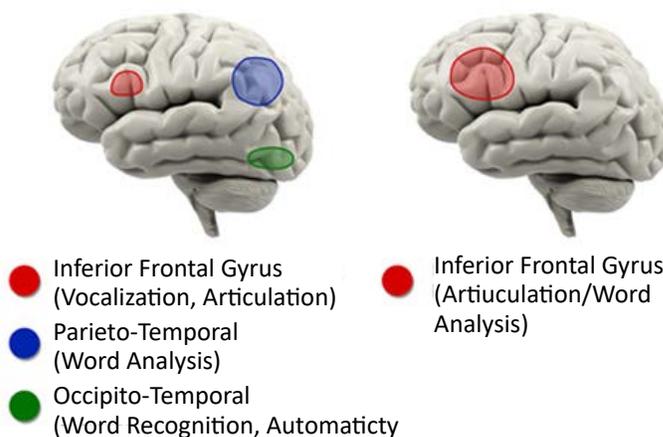
## Structured Literacy

Structured literacy is an umbrella term for evidence-based programs aligned with the International

Dyslexia Association's Knowledge and Practice Standards. This approach to reading instruction is grounded in science and designed to ensure all students are given a solid foundation in reading and writing through the elements and principles of effective, explicit, systematic reading instruction identified by the science of reading over several decades of empirical research. Structured literacy is built on the foundation of the Simple

View of Reading scientific theory that proposes reading comprehension is the product of decoding (word recognition) and language comprehension, sometimes referred to as linguistic comprehension (Gough & Tunmer, 1986).

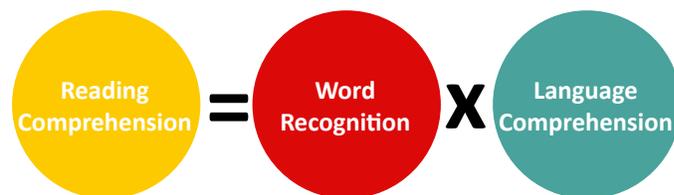
### Reading Activity in the Brain



Sources: (Shaywitz, 2004)

<https://learn-understand-care-knowledge.weebly.com/causes2.html>

## The Simple View of Reading



Structured literacy emphasizes the relationship between oral language and written language by addressing the following components (Moats, 2019):

- **Phonetics and Phonology** – The sound system of a language. English consists of 44 phonemes or speech sounds.
- **Sound-symbol (Orthography)** – How to map sounds (phonemes) to letters (graphemes).
- **Syllables** – Knowing the six syllable types and how to divide words into syllables.

- **Morphology** – The study of the smallest units of meaning (morphemes). Morphemes can include prefixes, suffixes, roots, and combining word forms (Greek layer of language).
- **Semantics** – The study of word and phrase meanings (vocabulary), comprehension, and written expression to convey meaning.
- **Syntax** – The system of rules governing proper word order in a sentence.
- **Discourse** – The organization of spoken and written communication or the exchange of information and ideas.
- **Pragmatics** – The social rules of a language that can consist of eye contact or taking turns and the use and interpretation of language.

## The Principles of Structured Literacy Instruction

**Explicit Instruction:** Explicit instruction means that students are directly taught each language skill and given many opportunities for guided and independent practice. Teachers provide modeling of each skill and in-the-moment feedback.

**Systematic and Cumulative Instruction:** With systematic and cumulative instruction, skills are taught in a logical order, moving from the most foundational skills to the more complex ones. Students learn and master skills to automaticity before moving on to more complex skills. The goal of systematic and cumulative instruction is to make sure that students have the foundational knowledge they need to learn a new skill. Teachers who use this type of teaching also continue to practice and review previously learned skills.

**Diagnostic Instruction:** Teachers use informal and formal assessment to continuously monitor progress and identify the skill level and needs of individual students. Students must reach a level of automaticity with each skill before they are ready to move on to more complex skills.

**Multisensory Instruction:** Research demonstrates the most successful structured literacy programs use multisensory methods of instruction that simultaneously activate the visual, auditory, kinesthetic, and tactile. Multisensory modes of learning lead to the production of new neural pathways, which lead to automaticity (Pickering, 2003).

### Broad Benefits

Evidence-based structured literacy instruction benefits all students. When general educators use explicit instruction in the structure of the language, reading proficiency rates improve drastically. In one district, student proficiency increased from 47 percent to 84 percent after teachers learned about the science of reading and used explicit and systematic instruction (Hanford, 2018).

This type of instruction is especially beneficial for

- Those who learn and think differently: Research demonstrates students with dyslexia benefit from interventions using explicit structured literacy instruction. Likewise, students who struggle with language comprehension benefit from explicit instruction on semantics (meaning) and syntax (the grammatical order of words).

- English learners: Evidence-based literacy instruction can help English learners develop reading and writing skills. Specifically, knowing the elements of English (like orthography, morphology, and syntax) can connect English to a learner’s other language and help demystify the structure of English while building vocabulary and comprehension.

Research consistently confirms the impact a knowledgeable teacher can have on the success or failure of even the best reading programs. To ensure teachers are knowledgeable about dyslexia, educators who teach students with dyslexia should be trained in new research and practices related to dyslexia as a part of their continuing professional education.

## Characteristics of Dyslexia

Dyslexia, affecting an estimated 15 percent and 20 percent of people, refers to a cluster of symptoms that results in difficulties with specific language skills, particularly reading. Students with dyslexia usually experience difficulties with spelling, writing, pronouncing words, and other language skills. Dyslexia affects individuals throughout their lives; however, its impact can change at different stages in a person’s life. It is referred to as a learning disability because dyslexia can make it very difficult for a student to succeed academically in the typical instructional environment and, in its more severe forms, will qualify a student for special education, special accommodations, or extra support services (International Dyslexia Association, 2018).

The problems displayed by individuals with dyslexia involve difficulties in acquiring and using written language, although not all students with difficulties have dyslexia. The dyslexic brain processes language differently than typical brains. These processing differences manifest in several key areas that are linked to reading and writing development.

Problems experienced by people with dyslexia include the following:

- Learning to speak or pronounce words correctly
- Difficulty with rhyming
- Difficulty with identifying and manipulating the sounds in a word
- Learning letters and their sounds
- Organizing written and spoken language
- Memorizing number facts
- Reading quickly enough to comprehend
- Persisting with and comprehending longer reading assignments
- Spelling
- Learning a foreign language
- Correctly doing math operations
- Following multi-step directions
- Difficulty with directionality

Dyslexia occurs in people of all backgrounds and intellectual levels. People with dyslexia can be very bright. They are often capable or even gifted in areas such as art, computer science, design, drama, electronics, math, mechanics, music, physics, sales, and sports.

In addition, dyslexia runs in families; parents with dyslexia are very likely to have children with dyslexia.

For some people, their dyslexia is identified early in their lives, but for others, their dyslexia goes unidentified until they get older (IDA Fact Sheet, 2019).

### Phonological Processing

Deficits in phonological awareness, phonological memory, rapid naming, or all three are common in children with dyslexia and other reading disabilities. An individual with a phonological core deficit has difficulty making use of phonological information (the sounds

of the language). The major components of phonological deficits involve phonemic awareness (the understanding of and access to the sound structure of language), sound-symbol relationships, and storage and retrieval of phonological information in memory (Torgesen, 1999).

***“Dyslexia is a specific learning disability that is neurobiological in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties typically result from a deficit in the phonological component of language that is often unexpected in relation to other cognitive abilities and the provision of effective classroom instruction. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge.”***

**International Dyslexia Association**

## Three Kinds of Phonological Processing

**Phonological Awareness:** Phonological awareness refers to an individual's awareness of and access to the sound structure of oral language. This awareness proceeds from word length phonological units in compound words (e.g., sunshine), to syllables within words, to onset-rimes units (the beginning sound plus a word family) within syllables, to individual phonemes within rimes, and finally to individual phonemes within consonant clusters.

**Phonological Memory:** Phonological memory refers to coding information phonologically for temporary storage in working memory. Phonological memory impairments can constrain the ability to learn new written or spoken vocabulary or to hold multiple pieces of phonological information in the working memory.

**Rapid Naming:** Rapid naming of objects, colors, digits, or letters requires efficient retrieval of phonological information from long-term memory. Individuals with dyslexia tend to have a slower than average phonological retrieval time.

It has been hypothesized that individuals who have double deficits – that is, deficits in both rapid naming and phonological awareness – appear to have greater difficulties learning to read than do individuals with deficits in either rapid naming or phonological awareness alone (Torgeson, 1994).

## Link to Achievement

Deficits in phonological awareness are viewed as the hallmark of basic word reading disabilities. They are, however, the most responsive to intervention of the phonological processing skill areas. Storage of phonological information during reading involves creating a sound-based representation of written words in working memory. Deficits in storage of phonological information result in faulty representations in memory, which lead to inaccurate application of sound rules during reading tasks. A deficit in phonological memory may impair reading comprehension for more complex sentences.

Naming facility or “rapid automatic naming” is very important to reading achievement. Retrieval of phonological information from long-term memory refers to how the child remembers pronunciations of letters, word segments, or entire words. Efficient retrieval of phonological information and execution of sequences of operations are required when readers attempt to decode unfamiliar words. Deficits in this area often result in difficulties with reading fluency.

## Identifying Students at Risk for Dyslexia

Dyslexia is a neurobiological disorder, and brain plasticity decreases through childhood. Research has shown that it takes four times as long to effectively intervene with a fourth-grade student as it does when a child is in late kindergarten because of brain development and because of the increase in content students must learn as they grow older (National Institute of Child Health and Human Development).

**“Deficits in phonological awareness, rapid automatized naming, verbal working memory and letter knowledge have been shown to be robust precursors of dyslexia in children as young as age three.”**

**Nadine Gaab, PhD**  
Harvard Graduate School  
of Education

Extensive evidence exists that supports the fact that early intervention is critical, and children at risk for reading failure can be reliably identified even before kindergarten.

The psychological and clinical implications of poor reading development can be prevented or minimized if problems are identified and intervention begins as early as possible (International Dyslexia Association Fact Sheet, 2019). Struggling readers who do not receive early intervention tend to fall further behind their peers (Stanovich, 1986).

## Screening for Dyslexia

Screening measures, typically brief assessments of a particular skill or ability that is highly predictive of a later outcome, are designed to quickly differentiate students between those who require intervention and those who do not. A good screening measure focuses on specific skills highly correlated with broader measures of reading achievement and result in a highly accurate sorting of students.

Screening tools share the following characteristics:

- Quick and targeted assessments of discrete skills that indicate whether students are making adequate progress in reading achievement
- Standardized directions for administration and scoring
- Established reliability and validity standards
- Screening results should identify those students potentially at risk for reading failure, including those who may have developmental reading disabilities

### What a Screener Should Measure

Although a quick assessment, a screening battery should include key domains, identified as predictors of future reading performance.

Kindergarten:

- Phonological awareness including phoneme segmentation, blending, onset and rime
- Rapid automatic naming
- Letter sound association
- Phonological memory, including nonword repetition (Catts, et al. 2015; Jenkins & Johnson, 2008).

First Grade:

- Phoneme awareness, specifically phoneme segmentation, blending, and manipulation tasks
- Letter naming fluency

- Letter sound association
- Phonological memory, including nonword repetition
- Word recognition fluency
- Rapid automatic naming (i.e., accuracy and rate) (Compton, et al., 2010; Jenkins & Johnson, 2008)

The Center on Response to Interventions screening briefs indicate oral reading fluency could be added in mid first grade.

### A screener is NOT used to diagnose dyslexia.

Rather, it is an indicator that a student may be at risk for dyslexia. A formal clinical evaluation is necessary to determine a diagnosis of dyslexia if the student continues to struggle with literacy skills, despite high-quality instruction using a Multi-Layered System of Supports (MLSS) approach. Areas to be assessed, in depth, by a team of individuals include the following: phonological awareness, phonological or language-based memory, rapid automatic naming, expressive and receptive language skills, phonics skills, decoding and encoding real and pseudo-words, oral reading fluency, and writing at the sentence and paragraph level. Evaluations are completed by trained specialists (e.g., psychologists and neuropsychologists, certified diagnosticians, speech and language pathologists, or educational specialists who have advanced degrees in assessment or education).

## Treating Dyslexia

Dyslexia is a lifelong condition. With proper help, many people with dyslexia can learn to read and write well. Early identification and intervention using an evidence-based, multi-sensory structured literacy intervention program taught by a highly trained specialist is the key to helping individuals with dyslexia achieve in school and in life. Individuals with dyslexia may need one-on-one help to move forward at their own pace. In addition, students with dyslexia often need a great deal of structured practice and immediate, corrective feedback to develop automatic word recognition skills (International Dyslexia Association, 2020).

Students may also need help with emotional issues that sometimes arise as a consequence of difficulties in school. Mental health specialists can help students cope with their struggles.

Dyslexia occurs on a continuum from mild to severe and not all individuals identified with dyslexia will qualify for special education services. In New Mexico, dyslexia falls under the eligibility for a specific learning disability.

## Early, Intense, Evidence-Based

When it comes to intervention, earlier is better. The best intervention begins in kindergarten with remediation beginning in first grade. All the research demonstrates that screening children for characteristics of dyslexia in kindergarten and first grade allows teachers to provide targeted intervention *before they fail*.

Reading intervention must be delivered with great intensity. A child who is struggling to read should receive evidence-based intervention daily in a small group setting of no more than six students. Evidence-based, Structured-literacy-based intervention should be provided by a highly qualified teacher with specific training in structured literacy intervention. Recent studies highlight the difference a skilled teacher can make in the overall success or failure of a reading program.

One of the most common mistakes in teaching a student with dyslexia to read is to stop instruction prematurely. A child who is reading accurately but not fluently at grade level still requires intensive reading intervention.

**Essentials of an effective early intervention program include the following:**

- Systematic and direct instruction in the following:
  - Phonemic awareness – noticing, identifying, and manipulating the sounds of spoken language
  - Phonics – how letters and letter groups represent the sounds of spoken language
  - Sounding out words (decoding)
  - Spelling (encoding)
  - Reading sight words
  - Vocabulary and concepts
  - Reading comprehension strategies
  - Practice in applying the above skills in reading and in writing
  - Fluency training
  - Enriched language experiences – listening to, talking about, and telling stories

(Shaywitz, 2003)

**Components of instruction in programs specifically designed for dyslexia include the following:**

### Phonemic awareness instruction

- enables students to detect, segment, blend, and manipulate sounds in spoken language.

### Systematic phonics instruction

- takes advantage of the letter-sound association in which words that carry meaning are made of sounds and sounds are written with letters in the right se-

quence. Students with this understanding can blend sounds associated with letters into words and can separate words into component sounds for spelling and writing.

### Language structure instruction

- encompasses morphology (the study of meaningful units of language such as prefixes, suffixes, and roots), semantics (ways that language conveys meaning), syntax (sentence structure), and pragmatics (how to use language in a particular context).

### Linguistics instruction

- is directed toward proficiency and fluency with the patterns of language so that words and sentences are the carriers of meaning.

### Process-oriented instruction

- teaches explicitly and directly the procedures or strategies for decoding, encoding, word recognition, vocabulary, fluency, and comprehension for skills that students need to become independent readers.

NOTE: Without a curriculum specifically designed for students with dyslexia, these students will be unlikely to become successful and efficient readers.

**Instructional approaches for multisensory, systematic, specific language-based reading programs specifically designed for dyslexia include the following:**

### Explicit, direct instruction

- is systematic (structured), sequential, and cumulative; is organized and presented in a way that follows a logical sequential plan, fits the nature of language (alphabetic principle) with no assumption of prior skills or language knowledge, and maximizes student engagement; and proceeds at a rate commensurate with students' needs, ability level, and demonstration of progress

### Individualized instruction

- meets the specific learning needs of each individual student in a small group setting using a reading curriculum that matches each student's individual ability level

### Intensive, highly concentrated instruction

- maximizes student engagement, uses specialized methods and materials, and produces results

### Meaning-based instruction

- is directed toward purposeful reading and writing, with an emphasis on comprehension and composition

### Multisensory instruction

- incorporates the simultaneous use of two or more sensory pathways (auditory, visual, kinesthetic, tactile) during teacher presentations and student practice

## Considerations for English Learners

English learners (ELs) receiving dyslexia services will need special consideration. Provision of dyslexia instruction should be in accordance with language of instruction or with the program model the student is currently receiving (dual language, transitional, bilingual, English as a second language). Interventionists working with ELs should have additional training on the specialized needs of these students.

Learning to read, write, and spell in two languages can be facilitated by building on a student's native language knowledge and helping to transfer that knowledge to a second language. While direct, systematic instruction is still required for all aspects of reading, additional explicit instruction will be needed to address the similarities and differences in sounds, syllable structure, morphology, orthography, and syntax between the first and second languages.

For ELs learning to read in English and not in their native language, progress in reading may be hindered due to limited vocabulary in English. Therefore, in addition to all the components of effective instruction previously discussed, intervention for ELs must emphasize oral language development. Because English is derived from other languages, ELs can expand their oral language and vocabulary knowledge by recognizing the cognates, words that are the same in two languages, that exist in their native language and English.

A few strategies to consider include the following:

- Establish routines so that ELs understand what is expected of them.
- Provide native language support when giving directions or when students do not understand the task.
- Provide opportunities for repetition and rehearsal so the new information can be learned to mastery.
- Adjust the rate of speech and the complexity of the language used according to the second language proficiency level of each student.
- Provide extra time for the EL to process the English language. This is especially necessary during the

early stages of second language development.

- Provide extra time for the EL to formulate oral and written responses.
- Emphasize text that includes familiar content and explain the structure of the text

(Cárdenas-Hagan, 2018)

## Other Accommodations and Supports

Students with dyslexia benefit from instructional

practices that are explicit, systematic, cumulative, multisensory, and diagnostic. Accommodations for students with dyslexia should focus on separating content comprehension from language skill level. Often, assignments and tests end up measuring a student's language skill level rather than their comprehension of content. Teachers should ask, "What am I measuring with this assignment? If I want to measure content knowledge, how can I provide a support that will allow the student to communicate what they know?"

### How Reading Is Taught Matters

*Reading instruction is most effective when it is taught comprehensively, systematically, and explicitly.*

*Emphasis should be placed on the importance of identifying early which children are at risk for reading failure and intervening to help them.*

The National Reading Panel

In general, dyslexic minds tend to grasp the big picture but have trouble processing the details. This is true whether the task is decoding each sound in a single word, identifying the parts of a sentence, or grasping the structure of a paragraph. It is also true in relationship to classroom expectations, following multiple step directions, or completing all steps of a large project. In all cases, accommodations that support the student's identification of the parts that lead to the whole will allow the student with dyslexia to maximize their intelligence.

Many of the below suggested accommodations are essential for students with dyslexia, but they are also supportive to all students in the classroom.

---

The following suggested accommodations are derived from the Reading Rockets website, a national public media literacy initiative.

#### **Accommodations involving materials and assignments:**

- Allow students to “ear-read” books through Learning Ally audiobooks or another service to maximize their comprehension. The comprehension level of most students with dyslexia is higher than their decoding level. “Ear-reading” eliminates the decoding barrier.
- Break work into smaller chunks to mitigate difficulties with multi-step directions.
- Simplify presentation of words on a page. Avoid “busy” pages with many pictures, colors, and words. Instead, place just a few questions or tasks on a page without any other distractions. Allow students to use a blank sheet of paper to cover up portions of a textbook page to decrease distractions.
- Highlight essential information. When giving instructions, highlight the action words that indicate what a student must “do.” When giving math problems, highlight the operations symbol.
- Use color. Color allows the dyslexic mind to see the structure of the assignment and makes it much easier to keep track of each part. Using color to track place value in math or color-coding the sentences of a paragraph to emphasize paragraph structure makes the abstract concrete.
- Use sentence or paragraph frames. Frames give students an opportunity to “get started” and stay focused on the topic. Instead of having to “start from scratch,” sentence and paragraph frames take the burden off the working memory and give students something to focus on.
- Use graphic organizers and explicit outlines and fill-in-the-blank guides (guided notes). Graphic organizers and explicit outlines can be used for taking notes in class, for responding to content, or for organizing an essay. In all cases, these tools take some of the burden off the working memory and allow students to focus on content.
- Use tactile and kinesthetic presentation of material. Students with dyslexia do best when they can hear, see, touch, and move. An example of this would be having students say “A” while they use their hand to trace the shape of an A large on a rough wall, carpet, sand tray, or other tactile surface.

#### **Accommodations for student performance:**

- Use oral response. Allowing a student with dyslexia to talk about what they have learned instead of writing about it will be a truer measurement of content knowledge and comprehension.
- Allow students to use speech to text software to write answers for tests or to write the rough draft of their essays.
- Offer alternatives to written assessments. Could learning be measured through an oral presentation, a drawing, or a model? Allow students with dyslexia to maximize their strengths in expressing their knowledge.
- Read instructions and test questions aloud to students.
- Reduce copying and handwriting. Allow students to take photos of notes on the board or record a lecture or provide lecture notes rather than asking students to copy things off the board.
- Use graph paper for math. Graph paper provides a system for organizing the numbers on the page.
- Provide extra time for assignments and tests. Extra time allows students with a slower processing speed the time necessary to fully complete tasks.
- Explicitly teach, practice, and enforce executive functioning skills. Use a planner and devote time each lesson to filling in the planner. Point out the way an assignment is structured. Make the abstract expectations of organizing learning concrete.

In general, students with dyslexia do best when they can maximize their strengths in the classroom. A teacher who understands dyslexia and who is prepared to support and remediate areas of weakness while celebrating a student’s strengths has the power to change a student’s self-image and path as a learner for the rest of their life.

## Appendix A: MLSS Process from Screening to Intervention<sup>1</sup>

### MLSS: An Overview

MLSS is a coordinated and comprehensive framework for educators to use to organize their schools and school systems to support student learning. This support is accomplished by identifying and supporting students' learning and behavioral needs and by recognizing and providing the resources teachers, health and wellness personnel, and school administrators required for full implementation and long-term sustainability of MLSS. MLSS supports high-quality instruction and intervention, healthy students, and safe learning environments.

MLSS is a framework for school personnel to support students by delivering a range of layered interventions based on data-driven and data-informed student needs. MLSS includes high-quality instruction and interventions with progress monitoring for impact. MLSS provides students with the interventions and supports needed to succeed in the general curriculum.

Within the MLSS framework, a dyslexia screener allows teachers to identify students at risk for dyslexia and provide targeted intervention addressing their skill deficit(s) in the general education classroom.

### Why Evidence Matters

Evidence-based interventions are practices or programs proven effective in producing results and improving outcomes. The kind of evidence described in ESSA has generally been produced through formal studies and research. To say that something is "evidence-based" means the program has undergone unbiased studies, and if instruction is delivered in the same manner, under the same conditions, similar results should be attainable (Shaywitz, 2004). Given this framework for identifying the tier of evidence, school leaders must keep in mind two factors when planning to implement any intervention:

Is there a body of research that provides evidence to support the efficacy of the proposed intervention and what tier does this fall within?

Does the school have the ability to gather data to support the continued use of the intervention to support student learning?

If the district or school leadership team cannot answer one or both of the questions with confidence, then proposed intervention should be re-evaluated.

**Refer to Section III for a detailed discussion of appropriate evidence-based intervention for students that are at risk for dyslexia.**

---

<sup>1</sup>[https://webnew.ped.state.nm.us/wp-content/uploads/2019/08/MLSS\\_SAT\\_Supplemental-Guide.8.27.19.pdf](https://webnew.ped.state.nm.us/wp-content/uploads/2019/08/MLSS_SAT_Supplemental-Guide.8.27.19.pdf)

## Appendix B: School or District Literacy Template Plan

An effective New Mexico school district literacy plan should address the following components:

- rationale for the development of a literacy plan: Why do we need a plan?
  - district literacy goals (to be revised yearly)
  - action plan for each goal
  - plan for Multi-Layered Systems of Support
  - plan for professional development
  - plan for assessing progress toward goals
  - district supports for schools
- I. Rationale for Literacy Plan: This section should be 1-2 paragraphs in length and should address the question – Why do we need a literacy plan?
  - II. District Literacy Goals: This section should state the literacy goals for the district; it should be revised on a yearly basis to reflect progress toward goals and next steps. Goals should be developed that explicitly address the following components of the law:
    - A. screening all first graders in the first 40 days of school
    - B. analyzing the screener data and making instructional choices based on the screener data
    - C. implementing structured literacy pedagogy and curriculum in the general education classroom
    - D. implementing effective structured literacy intervention for those students exhibiting characteristics of dyslexia as indicated by the screener
  - III. Action Plan for Each Goal: Districts should complete an action plan for each goal, using the following template.

Goal Statement: \_\_\_\_\_

Action Steps Toward Goal:

Timeline for Completion of Each Action Step:

Lead Person for each Action Step:

Resources Needed:

Plan of Monitor:

Measure of Success:
  - IV. Plan for MLSS: This section should describe how the MLSS structure will be utilized to ensure that all students are placed appropriately, progress is monitored regularly, and appropriate levels of intervention are provided. This section should also address the process for referring a student for a full diagnostic evaluation.
  - V. Plan for Professional Development: This section should address when and how all elementary teachers, special education teachers, and administrative staff will receive training in structured Literacy, the science of reading, from an accredited professional development provider in this field.
  - VI. Plan for Assessing Progress Toward Goals: This section should address the process for assessing individual student reading progress as well as for assessing how the district is progressing toward its literacy goals.
  - VII. Plan for District Support of Schools: This section should address how the district plans to provide ongoing literacy support for schools, including how literacy coaching/mentorship will be consistently provided to teachers.

VIII. Members of District Literacy Leadership Team: This section should identify the roles of the members of the District Literacy Leadership Team and explain how these members will receive ongoing professional development in structured literacy best practices.

**Resources for developing Literacy Plans: Making sure the plan does not sit on the shelf.**

[Implementation Research: A Synthesis of the Literature – Resource to assist with implementation change by Dean Fixsen<sup>1</sup>](#)

[Public Education Leadership Project at Harvard University – Information on district wide improvement strategies<sup>2</sup>](#)

[Outreach Modules developed by the Institute for learning and Brain Science \(I-Labs\) at the University of Washington<sup>3</sup>](#)

[Colorin Colorado – A bilingual site for educators and families<sup>4</sup>](#)

---

<sup>1</sup> <https://nirn.fpg.unc.edu/sites/nirn.fpg.unc.edu/files/resources/NIRN-MonographFull-01-2005.pdf>

<sup>2</sup> <https://pelp.fas.harvard.edu/>

<sup>3</sup> <http://ilabs.washington.edu/>

<sup>4</sup> <https://www.colorincolorado.org/>

## Appendix C: PED List of Approved Screeners

Lexercise

Teach Me to Read

IDEL

Screeners are approved upon meeting the following criteria:

- Phonological Awareness
- Phonemic Awareness
  - Segmentation, blending, manipulation
- Sound / Symbol Correspondence
  - Letter identification, sounds
- Rapid Naming Component
- Word Recognition / Reading
  - Decoding
- Spelling
  - Encoding

## Appendix D: International Dyslexia Association Knowledge and Practice Standards

### How to Read and Cite the Standards

The *Knowledge and Practice Standards of Teachers of Reading* are organized into five major content areas. Each knowledge standard, in the left column, is numbered to indicate the larger content domain to which it belongs. Examples of how each item within the domain might be observed, tested, or applied are aligned in columns to the right of each standard. The five content domains are as follows:

- Standard 1 addresses foundational concepts about reading development and reading difficulties that are derived from interdisciplinary research.
- Standard 2 covers knowledge of diverse profiles of reading difficulty, including dyslexia, very slow reading, and language comprehension problems.
- Standard 3 pertains to knowledge of assessment relevant to evidence-based practices with a response-to-intervention (RTI) framework.
- Standard 4 addresses Structured Literacy teaching, offering detailed guidance with regard to the nature of effective instruction in each major skill domain (phonological sensitivity and phoneme awareness, phonics and word recognition, reading fluency, vocabulary, listening and reading comprehension, and written expression). Standard 4 also offers guidance regarding expectations for teachers engaged in fieldwork or practicum (e.g., in interpretation of assessments, planning differentiated instruction, lesson design, corrective feedback, and so forth).
- Standard 5 delineates ethical standards for the profession.

Standards 1, 2, and 3 specify examples of tasks and activities that might demonstrate understanding of the knowledge standard that coursework designers could expect of their students. Standard 4 elaborates the meaning of Structured Literacy instruction by further enumerating examples of the teaching practices that might be expected in a practicum or fieldwork setting. These examples are offered for guidance only; course designers may certainly design other activities and tasks that replace or improve upon those proposed in this document.

When citing the Standards for inclusion on syllabi or training materials, please reference the standard and substandard. For example, KPS 4A.3 (Understand rationale for/Adapt instruction to accommodate individual differences in cognitive, linguistic, sociocultural, and behavioral aspects of learning). The citation for referencing this document follows:

International Dyslexia Association. (2018, March). *Knowledge and Practice Standards for Teachers of Reading*. Retrieved from <https://dyslexiaida.org/knowledge-and-practices/>

# Knowledge and Practice Standards for Teachers of Reading Summary Table

*Does Not Include Knowledge and Practice Examples*

## Standard 1: Foundations of Literacy Acquisition

1.1	Understand the (5) language processing requirements of proficient reading and writing: phonological, orthographic, semantic, syntactic, discourse.
1.2	Understand that learning to read, for most people, requires explicit instruction.
1.3	Understand the reciprocal relationships among phonemic awareness, decoding, word recognition, spelling, and vocabulary knowledge.
1.4	Identify and explain aspects of cognition and behavior that affect reading and writing development.
1.5	Identify (and explain how) environmental, cultural, and social factors contribute to literacy development.
1.6	Explain major research findings regarding the contribution of linguistic and cognitive factors to the prediction of literacy outcomes.
1.7	Understand the most common intrinsic differences between good and poor readers (i.e., linguistic, cognitive, and neurobiological).
1.8	Know phases in the typical developmental progression of oral language, phoneme awareness, decoding skills, printed word recognition, spelling, reading fluency, reading comprehension, and written expression.
1.9	Understand the changing relationships among the major components of literacy development in accounting for reading achievement.

## Standard 2: Knowledge of Diverse Reading Profiles, Including Dyslexia

2.1	Recognize the tenets of the (2003) IDA definition of dyslexia, or any accepted revisions thereof.
2.2	Know fundamental provisions of federal and state laws that pertain to learning disabilities, including dyslexia and other reading and language disability subtypes.
2.3	Identify the distinguishing characteristics of dyslexia.
2.4	Understand how reading disabilities vary in presentation and degree.
2.5	Understand how and why symptoms of reading difficulty are likely to change over time in response to development and instruction.

## Standard 3: Assessment

3.1	Understand the differences among and purposes for screening, progress-monitoring, diagnostic, and outcome assessments.
3.2	Understand basic principles of test construction and formats (e.g., reliability, validity, criterion, normed).
3.3	Interpret basic statistics commonly utilized in formal and informal assessment.
3.4	Know and utilize in practice well-validated screening tests designed to identify students at risk for reading difficulties.
3.5	Understand/apply the principles of progress-monitoring and reporting with Curriculum-Based Measures (CBMs), including graphing techniques.
3.6	Know and utilize in practice informal diagnostic surveys of phonological and phoneme awareness, decoding skills, oral reading fluency, comprehension, spelling, and writing.
3.7	Know how to read and interpret the most common diagnostic tests used by psychologists, speech-language professionals, and educational evaluators.
3.8	Integrate, summarize, and communicate (orally and in writing) the meaning of educational assessment data for sharing with students, parents, and other teachers.

<b>Standard 4: Structured Literacy Instruction</b>	
<b>Substandard A: Essential Principles and Practices of Structured Literacy Instruction</b>	
4A.1	Understand/apply in practice the general principles and practices of structured language and literacy teaching, including explicit, systematic, cumulative, teacher-directed instruction.
4A.2	Understand/apply in practice the rationale for multisensory and multimodal language-learning techniques.
4A.3	Understand rationale for/Adapt instruction to accommodate individual differences in cognitive, linguistic, sociocultural, and behavioral aspects of learning.
<b>Substandard B: Phonological and Phonemic Awareness</b>	
4B.1	Understand rationale for/identify, pronounce, classify, and compare all the consonant phonemes and all the vowel phonemes of English.
4B.2	Understand/apply in practice considerations for levels of phonological sensitivity.
4B.3	Understand/apply in practice considerations for phonemic-awareness difficulties.
4B.4	Know/apply in practice consideration for the progression of phonemic-awareness skill development, across age and grade.
4B.5	Know/apply in practice considerations for the general and specific goals of phonemic-awareness instruction.
4B.6	Know/apply in practice considerations for the principles of phonemic-awareness instruction: brief, multisensory, conceptual, articulatory, auditory-verbal.
4B.7	Know/apply in practice considerations for the utility of print and online resources for obtaining information about languages other than English.
<b>Substandard C: Phonics and Word Recognition</b>	
4C.1	Know/apply in practice considerations for the structure of English orthography and the patterns and rules that inform the teaching of single- and multisyllabic regular word reading.
4C.2	Know/apply in practice considerations for systematically, cumulatively, and explicitly teaching basic decoding and spelling skills.
4C.3	Know/apply in practice considerations for organizing word recognition and spelling lessons by following a structured phonics lesson plan.
4C.4	Know/apply in practice considerations for using multisensory routines to enhance student engagement and memory.
4C.5	Know/apply in practice considerations for adapting instruction for students with weaknesses in working memory, attention, executive function, or processing speed.
4C.6	Know/apply in practice considerations for teaching irregular words in small increments using special techniques.
4C.7	Know/apply in practice considerations for systematically teaching the decoding of multisyllabic words.
4C.8	Know/apply in practice considerations for the different types and purposes of texts, with emphasis on the role of decodable texts in teaching beginning readers.
<b>Substandard D: Automatic, Fluent Reading of Text</b>	
4D.1	Know/apply in practice considerations for the role of fluent word-level skills in automatic word reading, oral reading fluency, reading comprehension, and motivation to read.
4D.2	Know/apply in practice considerations for varied techniques and methods for building reading fluency.
4D.3	Know/apply in practice considerations for text reading fluency as an achievement of normal reading development that can be advanced through informed instruction and progress-monitoring practices.
4D.4	Know/apply in practice considerations for appropriate uses of assistive technology for students with serious limitations in reading fluency.
<b>Substandard E: Vocabulary</b>	
4E.1	Know/apply in practice considerations for the role of vocabulary development and vocabulary knowledge in oral and written language comprehension.
4E.2	Know/apply in practice considerations for the sources of wide differences in students' vocabularies.
4E.3	Know/apply in practice considerations for the role and characteristics of indirect (contextual) methods of vocabulary instruction.
4E.4	Know/apply in practice considerations for the role and characteristics of direct, explicit methods of vocabulary instruction.
<b>Substandard F: Listening and Reading Comprehension</b>	
4F.1	Know/apply in practice considerations for factors that contribute to deep comprehension.
4F.2	Know/apply in practice considerations for instructional routines appropriate for each major genre: informational text, narrative text, and argumentation.
4F.3	Know/apply in practice considerations for the role of sentence comprehension in listening and reading comprehension.

4F.4	Know/apply in practice considerations for the use of explicit comprehension strategy instruction, as supported by research.
4F.5	Know/apply in practice considerations for the teacher’s role as an active mediator of text-comprehension processes.
<b>Substandard G: Written Expression</b>	
4G.1	Understand the major skill domains that contribute to written expression.
4G.2	Know/apply in practice considerations for research-based principles for teaching letter formation, both manuscript and cursive.
4G.3	Know/apply in practice considerations for research-based principles for teaching written spelling and punctuation.
4G.4	Know/apply in practice considerations for the developmental phases of the writing process.
4G.5	Know/apply in practice considerations for the appropriate uses of assistive technology in written expression.
<b>Standard 5: Professional Dispositions and Practices</b>	
5.1	Strive to do no harm and to act in the best interests of struggling readers and readers with dyslexia and other reading disorders.
5.2	Maintain the public trust by providing accurate information about currently accepted and scientifically supported best practices in the field.
5.3	Avoid misrepresentation of the efficacy of educational or other treatments or the proof for or against those treatments.
5.4	Respect objectivity by reporting assessment and treatment results accurately, and truthfully.
5.5	Avoid making unfounded claims of any kind regarding the training, experience, credentials, affiliations, and degrees of those providing services.
5.6	Respect the training requirements of established credentialing and accreditation organizations supported by CERI and IDA.
5.7	Avoid conflicts of interest when possible and acknowledge conflicts of interest when they occur.
5.8	Support just treatment of individuals with dyslexia and related learning difficulties.
5.9	Respect confidentiality of students or clients.
5.10	Respect the intellectual property of others.

## Knowledge and Practice Standards for Teachers of Reading Includes Knowledge and Practice Examples

### STANDARD 1: FOUNDATIONS OF LITERACY ACQUISITION

Substandard	Examples of Coursework Expectations
1.1 Understand the (5) language processing requirements of proficient reading and writing: phonological, orthographic, semantic, syntactic, discourse.	<ul style="list-style-type: none"> <li>Explain the domains of language (phonology, morphology, syntax, semantics, pragmatics) and their importance to proficient reading and writing.</li> </ul>
1.2 Understand that learning to read, for most people, requires explicit instruction.	<ul style="list-style-type: none"> <li>Explain how most people learn to read, how reading acquisition differs from language acquisition, and how writing systems differ from oral language systems.</li> <li>Know that the brain has to establish new neural circuits, linking language and visual regions, to become skilled at reading.</li> </ul>
1.3 Understand the reciprocal relationships among phonemic awareness, decoding, word recognition, spelling, and vocabulary knowledge.	<ul style="list-style-type: none"> <li>Cite evidence and give practical examples showing how phonemic awareness affects attaining the alphabetic principle, decoding and spelling development, and storage and retrieval of spoken words, and that learning to read affects aspects of language processing, including the extent of phonemic awareness and precision of phonological representations of words in our mental dictionaries.</li> </ul>
1.4 Identify and explain aspects of cognition and behavior that affect reading and writing development.	<ul style="list-style-type: none"> <li>Cite examples of tasks or tests that measure each general cognitive factor; explain how problems in these areas might be observed in classroom learning.</li> <li>Identify how the following aspects of cognition and behavior affect reading and writing development: attention, automaticity, executive function, verbal memory, processing speed, graphomotor control.</li> </ul>
1.5 Identify (and explain how) environmental, cultural, and social factors contribute to literacy development.	<ul style="list-style-type: none"> <li>Explain major research findings regarding the contribution of environmental factors to the prediction of literacy outcomes (e.g., language spoken at home, language and literacy experiences, cultural values).</li> </ul>
1.6 Explain major research findings regarding the contribution of linguistic and cognitive factors to the prediction of literacy outcomes.	<ul style="list-style-type: none"> <li>Identify and explain the contribution of linguistic and cognitive factors to the prediction of literacy outcomes.</li> </ul>
1.7 Understand the most common intrinsic differences between good and poor readers (i.e., linguistic, cognitive, and neurobiological).	<ul style="list-style-type: none"> <li>Explain the defining characteristics of major types of reading difficulties (i.e., dyslexia, fluency deficits, specific reading comprehension difficulties, mixed reading difficulties).</li> <li>Recognize the major types of reading difficulties when they manifest in a student's developmental history, test performance, and reading behavior.</li> </ul>
1.8 Know phases in the typical developmental progression of oral language, phoneme awareness, decoding skills, printed word recognition, spelling, reading fluency, reading comprehension, and written expression.	<ul style="list-style-type: none"> <li>Identify the most salient instructional needs of students who are at different points of reading and writing development.</li> </ul>
1.9 Understand the changing relationships among the major components of literacy development in accounting for reading achievement.	<ul style="list-style-type: none"> <li>Explain the importance of code-emphasis instruction in the early grades and language comprehension once word-recognition skill is established; recognize that vocabulary and other aspects of oral language development must be nurtured from the earliest grades through reading aloud and classroom dialogue.</li> </ul>

Knowledge and Practice Standards for Teachers of Reading • ©2018, The International Dyslexia Association

### STANDARD 2: KNOWLEDGE OF DIVERSE READING PROFILES, INCLUDING DYSLLEXIA

Substandard	Examples of Coursework Expectations
2.1 Recognize the tenets of the (2003) IDA definition of dyslexia, or any accepted revisions thereof.	<ul style="list-style-type: none"> <li>Explain the reasoning or evidence behind key terms in the definition (e.g., neurobiological origin, phonological component of language); distinguish evidence-based tenets from popular but unsupported beliefs and claims about dyslexia (e.g., dyslexia is a visual problem; people with dyslexia have unusual talents).</li> </ul>
2.2 Know fundamental provisions of federal and state laws that pertain to learning disabilities, including dyslexia and other reading and language disability subtypes.	<ul style="list-style-type: none"> <li>Explain the most fundamental provisions of federal and state laws (IDEA, 504, etc.) pertaining to the rights of students with disabilities, especially students' rights to a free, appropriate public education, an individualized educational plan, services in the least restrictive environment, and due process.</li> <li>Distinguish IEP goals and objectives that are clear, specific, appropriate to students' needs, and attainable.</li> </ul>
2.3 Identify the distinguishing characteristics of dyslexia.	<ul style="list-style-type: none"> <li>Cite research-based prevalence estimates for disorders of word recognition, reading fluency, reading comprehension, spelling, handwriting and written expression; cite research-based differences between good and poor readers, depending on the kind of reading disability, with regard to learning word-recognition and decoding skills as compared to listening and reading comprehension.</li> </ul>
2.4 Understand how reading disabilities vary in presentation and degree.	<ul style="list-style-type: none"> <li>Recognize levels of instructional intensity, frequency, and duration appropriate for mild, moderate, and severe reading disabilities with the scope of instruction corresponding to the type of reading difficulties (e.g., dyslexia, specific reading comprehension) to attain catch-up growth and annual growth. Identify how to coordinate regular classroom instruction and other forms of intervention, including highly specialized settings.</li> <li>Recognize the indicators of a primary disability in reading fluency, including slow processing speed, slow RAN, and nonautomatic word recognition (failure to read words by sight).</li> </ul>
2.5 Understand how and why symptoms of reading difficulty are likely to change over time in response to development and instruction.	<ul style="list-style-type: none"> <li>Recognize how the symptoms of dyslexia or other reading difficulties change as literacy develops and how instructional priorities and emphases should change accordingly.</li> </ul>

STANDARD 3: ASSESSMENT	
Substandard	Examples of Coursework Expectations
3.1 Understand the differences among and purposes for screening, progress-monitoring, diagnostic, and outcome assessments.	<ul style="list-style-type: none"> <li>State the major purposes for each kind of assessment and identify examples of each.</li> </ul>
3.2 Understand basic principles of test construction and formats (e.g., reliability, validity, criterion, normed).	<ul style="list-style-type: none"> <li>Distinguish examples of valid and invalid assessment tools or strategies; demonstrate respect for and fidelity to standardized administration procedures.</li> </ul>
3.3 Interpret basic statistics commonly utilized in formal and informal assessment.	<ul style="list-style-type: none"> <li>Interpret grade equivalents, age equivalents, normal curve equivalents, percentiles, risk classifications, fluency norms, and standard scores.</li> <li>Recognize the most appropriate types of norm-referenced scores to report and use for interpretation of performance (e.g., percentiles and standard scores rather than grade or age equivalents); interpret grade versus age norms.</li> </ul>
3.4 Know and utilize in practice well-validated screening tests designed to identify students at risk for reading difficulties.	<ul style="list-style-type: none"> <li>Learn standardized administration of one valid, reliable screening test, administer it to a student or a group of students, and interpret the instructional implications of the results. A valid screening tool that flags students at risk for reading difficulties is likely to selectively, briefly, and efficiently sample subskills such as the following: <ul style="list-style-type: none"> <li>Letter naming</li> <li>Phoneme isolation and identification, segmentation, blending, and/or manipulation</li> <li>Phonics correspondences (sound-symbol relationships)</li> <li>Spelling and phonetic accuracy of spelling attempts</li> <li>Word reading, real and/or nonsense words</li> <li>Oral reading fluency (timed reading of short passages)</li> <li>Reading comprehension</li> </ul> </li> </ul>
3.5 Understand/apply the principles of progress monitoring and reporting with CBMs, including graphing techniques.	<ul style="list-style-type: none"> <li>Administer, interpret, and graph or summarize the results of CBMs that directly assess student progress in reading, spelling, and writing and/or the relevant literacy subskills that are targeted for instruction.</li> <li>Explain the advantages of CBM for progress monitoring (e.g., ease and speed of administration, sensitivity to incremental progress, availability of multiple equivalent forms).</li> </ul>

3.6 Know and utilize in practice informal diagnostic surveys of phonological and phonemic awareness, decoding skills, oral reading fluency, comprehension, spelling, and writing.	<ul style="list-style-type: none"> <li>Administer and interpret informal (e.g., not norm-referenced) diagnostic surveys and inventories for the purpose of pinpointing a student's strengths, weaknesses, and instructional needs in the following areas: <ul style="list-style-type: none"> <li>Phonological sensitivity (in preschool) and phonemic awareness (in kindergarten and later)</li> <li>Accuracy and fluency of letter naming, letter formation, alphabet knowledge</li> <li>Phonics and application of introductory and advanced phonics to spelling and word reading</li> <li>Oral passage reading fluency and comprehension</li> <li>Silent passage reading comprehension and recall</li> <li>Listening comprehension and recall</li> <li>Morpheme recognition, interpretation, and spelling</li> <li>Automatic recognition of high-frequency words</li> <li>Writing performance (punctuation, capitals, syntax, organization, content, spelling, vocabulary)</li> </ul> </li> </ul>
3.7 Know how to read and interpret the most common diagnostic tests used by psychologists, speech-language professionals, and educational evaluators.	<ul style="list-style-type: none"> <li>Understand and use relevant information from formal assessments administered by licensed examiners, including current versions of these instruments, such as the following: <ul style="list-style-type: none"> <li>Clinical Evaluation of Language Fundamentals (CELF)</li> <li>Comprehensive Test of Phonological Processing (C-TOPP)</li> <li>Peabody Picture Vocabulary Test (PPVT)</li> <li>Rapid Automatic Naming Test (RAN)</li> <li>Test of Word Reading Efficiency (TOWRE)</li> <li>Woodcock-Johnson Tests of Cognitive Ability and Achievement (WJR)</li> </ul> </li> </ul>
3.8 Integrate, summarize, and communicate (orally and in writing) the meaning of educational assessment data for sharing with students, parents, and other teachers.	<ul style="list-style-type: none"> <li>Explicitly link information from screenings, diagnostic surveys, progress monitoring, and descriptive data to instructional decisions governing the content, entry point, pace, intensity, student grouping, and methods for literacy intervention.</li> </ul>

STANDARD 4: STRUCTURED LITERACY INSTRUCTION		
A: ESSENTIAL PRINCIPLES AND PRACTICES OF STRUCTURED LITERACY INSTRUCTION		
Substandard	Examples of Coursework Expectations	Examples of Practicum or Fieldwork Expectations
4A.1 Understand/apply in practice the general principles and practices of structured language and literacy teaching, including explicit, systematic, cumulative, teacher-directed instruction.	<ul style="list-style-type: none"> <li>Identify the principles and lesson elements of explicit and teacher-directed lessons for classroom instruction: explain, model, lead, provide guided practice, assess, review.</li> <li>Cite the major consensus findings on reading instruction from the National Reading Panel, the National Early Literacy Panel, relevant IES Practice Guides, and other current consensus reports regarding the science of reading.</li> <li>Identify the principles and lesson elements of explicit and teacher-directed lessons for individual or small-group instruction: explain, model, lead, provide guided practice, assess, review.</li> <li>Identify the characteristics of systematic teaching that gradually and cumulatively build students' skills from easier to more difficult.</li> <li>Explain the limits of whole-class instruction, and cite research indicating the merits of small-group instruction for homogeneously grouped students.</li> </ul>	<ul style="list-style-type: none"> <li>Plan and deliver lessons with a cumulative progression of skills that build on one another.</li> <li>Provide sufficient practice with connected text. During the early grades, use decodable text aligned with phonics patterns that the student has been taught, and progress to less-controlled text as the student internalizes.</li> <li>Differentiate instruction based on students' progress in each language and literacy domain. Group accordingly for lessons in each area of language and literacy (e.g., phonemic awareness, decoding, fluency, vocabulary, language comprehension and expression, written language).</li> <li>Recognize and avoid intervention practices and program characteristics that contrast with or are not aligned with structured literacy practices.</li> </ul>
4A.2 Understand/apply in practice the rationale for multisensory and multimodal language-learning techniques.	<ul style="list-style-type: none"> <li>State the rationale for multisensory and multimodal techniques, with reference to brain science, cognitive science, and long-standing clinical practice using these methods.</li> <li>Given a single-modality task, adapt it so that it becomes multisensory.</li> </ul>	<ul style="list-style-type: none"> <li>Structure learning activities and tasks so they require the simultaneous use of two or three learning modalities (including listening, speaking, moving, touching, reading, and/or writing) to increase engagement and enhance memory.</li> </ul>
4A.3 Understand rationale for/adapt instruction to accommodate individual differences in cognitive, linguistic, sociocultural, and behavioral aspects of learning.	<ul style="list-style-type: none"> <li>Identify logical adaptations of instruction for students with weaknesses in language, working memory, attention, executive function, or processing speed.</li> <li>Respond adaptively and constructively to cultural norms and family/community literacy practices affecting student learning.</li> </ul>	<ul style="list-style-type: none"> <li>Adapt task content, task presentation (amount/complexity of information, mode of presentation) and task requirements (accuracy, speed, length, manner of response) to ensure optimal rate of student success.</li> </ul>

STANDARD 4: STRUCTURED LITERACY INSTRUCTION		
B: PHONOLOGICAL AND PHONEMIC AWARENESS		
Substandard	Examples of Coursework Expectations	Examples of Practicum or Fieldwork Expectations
4B.1 Understand rationale for/identify, pronounce, classify, and compare all the consonant phonemes and all the vowel phonemes of English.	<ul style="list-style-type: none"> <li>Discuss why phonemic awareness is necessary for learners of alphabetic writing systems.</li> <li>Explain the difference between phonological awareness, phonemic awareness, and phonics.</li> <li>Identify phonemes that are more likely to be confused with each other because they share articulatory features and thus sound similar.</li> <li>Identify phonemes in words in which the spelling does not transparently represent the phoneme (e.g., <i>dogs</i>, <i>sure</i>, <i>ink</i>).</li> </ul>	<ul style="list-style-type: none"> <li>Explicitly teach articulatory features of phonemes and words during PA lessons by such techniques as modeling, using a mirror, describing the speech sound, or using a hand gesture or mouth picture to illustrate the way the speech sound is produced.</li> <li>Deliberately choose wide (e.g., /m/, /z/) or narrow (e.g., /m/, /n/) phoneme contrasts during instruction, depending on the students' phase of phonemic-awareness development.</li> <li>For students who may be relying on spelling or letter knowledge to perform a phonemic-awareness task, reinforce attention to sound by using words in phonemic-awareness tasks whose spellings do not transparently represent the phonemes.</li> </ul>
4B.2 Understand/apply in practice considerations for levels of phonological sensitivity.	<ul style="list-style-type: none"> <li>Explain the general developmental progression of phonological sensitivity and provide examples of each.</li> <li>Identify, count, and separately pronounce the syllables in multisyllabic words.</li> <li>Blend and segment onset-rime units in one-syllable words.</li> <li>Recognize and generate rhymes of words with one or more syllables (e.g., <i>my/pie</i>; <i>mountain/fountain</i>).</li> <li>Identify the number of phonemes in a spoken word.</li> <li>Isolate a given phoneme in a spoken word.</li> </ul>	<ul style="list-style-type: none"> <li>Explicitly and accurately label the linguistic unit of focus in any phonological-sensitivity lesson (syllable, onset-rime, rhyming word).</li> <li>Choose wide contrasts for beginning rhyme tasks (e.g., <i>fan/seat</i> vs. <i>fan/pin</i>).</li> <li>Know activities that would help children acquire these early, basic phonological-sensitivity skills (e.g., rhyme recognition and rhyme production, syllable counting, first sound matching, first sound segmentation) in words with a simple onset that has only one phoneme, blending onset and rime.</li> </ul>
4B.3 Understand/apply in practice considerations for phoneme awareness difficulties.	<ul style="list-style-type: none"> <li>Identify reasons why students may experience difficulty with phonemic-awareness tasks (e.g., coarticulation effect).</li> <li>Identify common allophonic variations (changes of speech sounds in natural speech), often resulting from coarticulation, that alter how certain phonemes are produced and sound.</li> </ul>	<ul style="list-style-type: none"> <li>When introducing a phoneme, select word examples that minimize coarticulation effects.</li> <li>Select key words to illustrate each phoneme that feature nondistorted phonemes (no coarticulation effect).</li> <li>For phonemic-awareness instruction, clearly focus on the speech sound, not the letter name for spelling a phoneme.</li> </ul>
4B.4 Know/apply in practice consideration for the progression of phonemic-awareness skill development, across age and grade.	<ul style="list-style-type: none"> <li>Identify the common progression of phonological and phonemic-awareness skills as related to student grade levels.</li> <li>Plan to link phoneme knowledge with letter (grapheme) knowledge as the student progresses.</li> </ul>	<ul style="list-style-type: none"> <li>Plan and deliver a scope and sequence of systematic phonological and phonemic-awareness instruction.</li> <li>Select and implement PA activities that correspond with a student's level of PA development, proceeding to the next level when mastery is attained on the prior phase.</li> <li>Know a variety of activities for each level of phonological and phonemic awareness.</li> </ul>

4B.5 Know/apply in practice considerations for the general and specific goals of phonemic-awareness instruction.	<ul style="list-style-type: none"> <li>Align PA instruction to reading and spelling goals, for example, making identification of a short vowel in spoken one-syllable words a prerequisite for learning the letter that represents that short vowel in print.</li> </ul>	<ul style="list-style-type: none"> <li>Routinely incorporate phonemic-awareness instruction into reading, spelling, and vocabulary instruction.</li> </ul>
4B.6 Know/apply in practice considerations for the principles of phonemic-awareness instruction: brief, multisensory, conceptual, articulatory, auditory-verbal.	<ul style="list-style-type: none"> <li>Plan to provide brief (5–10 minute), distributed, multisensory phonemic-awareness activities during structured literacy classroom teaching and/or intervention for 15–20 weeks (or more, as needed, to reach curricular goals) in K–1 and for students who need remedial instruction after first grade.</li> </ul>	<ul style="list-style-type: none"> <li>Use tactile and kinesthetic aids, such as blocks, chips, sound boxes, body mapping, finger tapping, and left-to-right hand motions in learning a variety of early, basic, and more advanced PA activities as appropriate.</li> </ul>
4B.7 Know/apply in practice considerations for the utility of print and online resources for obtaining information about languages other than English.	<ul style="list-style-type: none"> <li>Compare a student’s first language phonological system with Standard American English to anticipate which speech sounds in English are not in the student’s native language or dialect and are likely to be challenging for the learner to distinguish and produce.</li> </ul>	<ul style="list-style-type: none"> <li>Explicitly teach the phonemes of English that the EL or nonstandard dialect user may not have in his or her first language.</li> <li>Provide practice distinguishing the new phoneme from similarly articulated phonemes (e.g., for children who speak Spanish, classifying spoken words in English as starting with /sh/ or with /ch/).</li> </ul>

STANDARD 4: STRUCTURED LITERACY INSTRUCTION C: PHONICS AND WORD RECOGNITION		
Substandard	Examples of Coursework Expectations	Examples of Practicum or Fieldwork Expectations
4C.1 Know/apply in practice considerations for the structure of English orthography and the patterns and rules that inform the teaching of single- and multisyllable regular word reading.	<ul style="list-style-type: none"> <li>Define key terms (e.g., <i>grapheme</i>, <i>phoneme</i>, <i>syllable</i>, <i>suffix</i>), and identify examples of each.</li> <li>Map regular words by phoneme-grapheme (or grapheme-phoneme) correspondences.</li> <li>Sort single-syllable regular words according to written syllable type (closed, open, vowel-consonant-e, vowel team, r-controlled, consonant-le).</li> <li>Divide two-syllable words using the most useful syllable division principles (VC/CV; V/CV; VC/V; VC/CCV; VCC/CV/ consonant-le).</li> <li>Identify morphemes in common words, including prefixes, inflectional and derivational suffixes, roots, and combining forms.</li> <li>Explain why the English writing system is, in fact, highly regular and that words that are not fully regular usually differ in one phoneme/grapheme correspondence and preserve morphological information.</li> </ul>	<ul style="list-style-type: none"> <li>Choose accurate examples for linguistic and orthographic concepts.</li> <li>Use appropriate and accurate terminology during structured literacy teaching.</li> <li>Correct student errors in word reading and spelling by providing insight into the language and/or orthographic structures in those words.</li> <li>Communicate to students that nearly all words can be read using knowledge of speech-to-print relationships and that those with an irregularity usually just differ in one grapheme.</li> </ul>
4C.2 Know/apply in practice considerations for systematically, cumulatively, and explicitly teaching basic decoding and spelling skills.	<ul style="list-style-type: none"> <li>Identify where any given skill fits into a scope and sequence.</li> <li>Order decoding concepts from easier to more difficult.</li> </ul>	<ul style="list-style-type: none"> <li>Teach the system of correspondences in a logical progression (simple to complex).</li> <li>Use student assessment data to guide the development of a scope and sequence/where to begin instruction.</li> <li>Use assessment data to develop measurable, observable instructional goals and objectives. (Interventionists and specialists should develop these in line with IEP/504 expectations.)</li> </ul>
4C.3 Know/apply in practice considerations for organizing word-recognition and spelling lessons by following a structured phonics lesson plan.	<ul style="list-style-type: none"> <li>Use a lesson framework that includes review of a previously learned skill or concept, introduction of a new skill or concept, supported practice, independent practice, and fluent application to meaningful reading and/or writing.</li> <li>Describe or demonstrate each of the following word work activities and their purpose in relation to the lesson plan: word sorting, quick speed drills, sound (Elkonin) boxes with letters and graphemes, word building, word chaining, writing to dictation.</li> </ul>	<ul style="list-style-type: none"> <li>Effectively teach all steps in an explicit phonics lesson. (For example, develop phonemic awareness, introduce sound/spelling correspondence, blend and read words, practice word chaining, build automatic word recognition, spell and write selected lesson words, and apply to decodable text reading.)</li> </ul>

4C.4 Know/apply in practice considerations for using multisensory routines to enhance student engagement and memory.	<ul style="list-style-type: none"> <li>Plan to incorporate multisensory learning (e.g., simultaneously employing two or three modalities, including looking, listening, speaking, touching, moving).</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate fluent execution of at least two teacher-led sound-blending techniques cued by the hand or moveable objects (chips, tiles, etc.).</li> <li>Fluently manage and manipulate tangible instructional materials, such as alphabet arcs, sound-symbol cards, and grapheme tiles. Employ signals, such as hand gestures, to cue student responses during phonemic-awareness and reading activities.</li> </ul>
4C.5 Know/apply in practice considerations for adapting instruction for students with weaknesses in working memory, attention, executive function, or processing speed.	<ul style="list-style-type: none"> <li>Identify how instruction can be modified to increase attention, support memory, build fluency, or support strategy use by students.</li> </ul>	<ul style="list-style-type: none"> <li>Adapt the pace, format, content, strategy, or emphasis of instruction to increase student success.</li> </ul>
4C.6 Know/apply in practice considerations for teaching irregular words in small increments using special techniques.	<ul style="list-style-type: none"> <li>Distinguish among high-frequency regular/ irregular words.</li> <li>Define sight words in relation to regular/ irregular words.</li> <li>Place words on a continuum of fully predictable, partially or conditionally pattern-based, and unique (not belonging to a word family).</li> <li>Identify which part of a given word would be unknown to a student on the basis of previous instruction.</li> <li>Identify/describe the three factors to consider when determining how to introduce irregular words within a reading program (word frequency, word similarity, word meaning).</li> </ul>	<ul style="list-style-type: none"> <li>Introduce high-frequency words (both regular and irregular) a few words at a time in tandem with teaching decoding and spelling patterns to support reading of connected text.</li> <li>Provide frequent, distributed practice of high-frequency words until recognized and/or spelled accurately and automatically.</li> <li>Teach truly irregular words through a multisensory approach, emphasizing spelling regularities, word origin, meaning, and/or pronunciation whenever possible to make sense of the word's spelling.</li> </ul>
4C.7 Know/apply in practice considerations for systematically teaching the decoding of multisyllabic words.	<ul style="list-style-type: none"> <li>Teach written syllable types in a logical sequence (e.g., closed, open, vowel-consonant-e, vowel team, consonant-le, r-controlled).</li> <li>Identify the difference between syllable division in natural speech and syllable division in printed words.</li> <li>Clearly distinguish morphemes from syllables while identifying word parts.</li> </ul>	<ul style="list-style-type: none"> <li>Explicitly teach written syllable types and written syllable division principles to support the reading of multisyllable words.</li> <li>Explicitly teach students how to isolate roots and affixes to support multisyllable word reading.</li> <li>Teach the meaning of common affixes and roots.</li> <li>Teach additional strategies for decoding longer words, such as identifying the pronounced vowels, suffixes, and prefixes, and flexing the decoded vowels (i.e., define, definition, definitive) if necessary.</li> </ul>

4C.8 Know/apply in practice considerations for the different types and purposes of texts, with emphasis on the role of decodable texts in teaching beginning readers.	<ul style="list-style-type: none"> <li>Describe how decodable texts differ from predictable and high-frequency word texts in structure and purpose.</li> <li>Identify and define word types: wholly decodable words, irregular words (previously taught), and nondecodable words (not wholly decodable or previously taught).</li> <li>Analyze a decodable text to identify word types (wholly decodable, introduced high-frequency words, nondecodable words), and list words identified by type; calculate percentage of each type of word present in the text.</li> </ul>	<ul style="list-style-type: none"> <li>Effectively develop or select, and utilize, decodable texts to support developing readers in applying taught phonics concepts in context.</li> <li>Select instructional-level texts for student reading that correspond to the content and purpose of students' reading skill lessons.</li> <li>Discern texts that do not support decoding lessons because they contain too many untaught word patterns and high-frequency words.</li> </ul>
---	--	---

**STANDARD 4: STRUCTURED LITERACY INSTRUCTION  
D: AUTOMATIC, FLUENT READING OF TEXT**

<b>Substandard</b>	<b>Examples of Coursework Expectations</b>	<b>Examples of Practicum or Fieldwork Expectations</b>
4D.1 Know/apply in practice considerations for the role of fluent word-level skills in automatic word reading, oral reading fluency, reading comprehension, and motivation to read.	<ul style="list-style-type: none"> <li>Explain why all component skills for reading development must become accurate and rapid to support more advanced reading skills (e.g., knowledge of letter names/sounds, phonemic awareness, decoding).</li> <li>Explain how phoneme-grapheme mapping underpins the development of accurate, automatic word recognition.</li> <li>Explain the interdependence of phonic decoding, word recognition, oral reading fluency, vocabulary, and silent reading comprehension.</li> </ul>	<ul style="list-style-type: none"> <li>Select and use fluency-building routines and activities for both automatic application of literacy subskills and for text reading, as appropriate.</li> <li>Identify relevant apps or computer games for building automaticity in word recognition.</li> <li>Choose instructional materials to build automaticity in subskills/practice reading texts of appropriate difficulty.</li> </ul>
4D.2 Know/apply in practice considerations for varied techniques and methods for building reading fluency.	<ul style="list-style-type: none"> <li>Describe the role of and appropriate use of independent silent reading, assisted reading, repeated reading, and integrated fluency instruction to promote fluent reading of text.</li> <li>Describe and role-play fluency-building techniques, including brief speed drills, phrase-cued reading, simultaneous oral reading, alternate oral reading, and repeated readings.</li> <li>Identify and describe ways that repeated oral reading can be adapted to meet students' individual needs.</li> </ul>	<ul style="list-style-type: none"> <li>Define and identify examples of text at a student's frustration, instructional, and independent reading levels; recognize how requirements for word accuracy in instructional and independent reading increase by grade.</li> <li>Provide ample opportunities for student(s) to read connected text daily, with appropriate feedback on decoding errors.</li> <li>Guide the student to correct his or her reading errors, even when contextually appropriate.</li> <li>Incorporate fluency-building routines and activities into reading lessons, including brief speed drills, phrase-cued reading, simultaneous oral reading, alternate oral reading, and/or repeated readings.</li> <li>Adapt the length of tasks, time limits, and scaffolds to enable student success and progress.</li> </ul>

<p>4D.3 Know/apply in practice considerations for text reading fluency as an achievement of normal reading development that can be advanced through informed instruction and progress-monitoring practices.</p>	<ul style="list-style-type: none"> <li>Identify reading subskills that may be appropriate for brief speed drills (e.g., letter naming, word reading, symbol-sound recall)</li> <li>Identify and define the components of passage reading fluency (accuracy, rate, prosody).</li> <li>Interpret CBMs, including oral-reading fluency norms, to develop fluency-building goals with students.</li> </ul>	<ul style="list-style-type: none"> <li>Select, administer, and graph appropriate curriculum-based measures of relevant reading subskills.</li> <li>Effectively administer, score, and interpret an oral-reading fluency curriculum-based measure (CBM).</li> <li>Rate the prosodic quality of a student's oral reading.</li> <li>Develop fluency goals and objectives with students and involve students in graphing progress toward those goals.</li> </ul>
<p>4D.4 Know/apply in practice considerations for appropriate uses of assistive technology for students with serious limitations in reading fluency.</p>	<ul style="list-style-type: none"> <li>Locate and access assistive technology for students with serious limitations in reading fluency.</li> </ul>	<ul style="list-style-type: none"> <li>Support students in learning to use assistive technology, such as print-to-speech translators, apps, e-books, and audiobooks.</li> </ul>
<p><b>STANDARD 4: STRUCTURED LITERACY INSTRUCTION</b> <b>E. VOCABULARY</b></p>		
<p><b>Substandard</b></p>	<p><b>Examples of Coursework Expectations</b></p>	<p><b>Examples of Practicum or Fieldwork Expectations</b></p>
<p>4E.1 Know/apply in practice considerations for the role of vocabulary development and vocabulary knowledge in oral and written language comprehension.</p>	<ul style="list-style-type: none"> <li>Identify and summarize the evidence that knowledge of word meanings is a major factor in language comprehension and expression.</li> <li>Summarize the findings of the National Reading Panel, the National Early Literacy Panel, and current IES Practice Guides with regard to vocabulary instruction.</li> <li>Identify and discuss the classroom indicators of students' vocabulary strengths and weaknesses, such as limited range of word use, confusion about multiple meanings of words, lack of understanding of idioms, slow word retrieval, and poor-quality definitions.</li> </ul>	<ul style="list-style-type: none"> <li>Habitually include vocabulary-building activities and routines during all instruction.</li> <li>Recognize when a particular vocabulary-building activity (e.g., morphemic analysis, contextual analysis) is more or less appropriate depending on the word being taught.</li> </ul>
<p>4E.2 Know/apply in practice considerations for the sources of wide differences in students' vocabularies.</p>	<ul style="list-style-type: none"> <li>Identify the intrinsic and extrinsic (environmental) factors that are causally related to vocabulary growth, including adult-child interaction patterns; school, socioeconomic, and community contexts; first language other than English; and neurodevelopmental differences in language processing.</li> <li>Discuss the vocabulary gap in root word knowledge and the implications for vocabulary instruction.</li> </ul>	<ul style="list-style-type: none"> <li>Include at least an informal assessment of student vocabulary in screening; refer for speech/language assessment when appropriate.</li> <li>Choose reading materials (read aloud and student reading) that expand vocabulary knowledge.</li> </ul>
<p>4E.3 Know/apply in practice considerations for the role and characteristics of indirect (contextual) methods of vocabulary instruction.</p>	<ul style="list-style-type: none"> <li>Cite and summarize evidence that supports teacher modeling, classroom conversation, reading aloud, wide independent reading, independent word-learning strategies, and word play in building student vocabulary.</li> </ul>	<ul style="list-style-type: none"> <li>Promote a rich language environment by scaffolding high-quality language in student dialogue, reading appropriate children's literature aloud, engaging students in classwide activities involving vocabulary, and modeling academic language use.</li> </ul>
<p>4E.4 Know/apply in practice considerations for the role and characteristics of direct, explicit methods of vocabulary instruction.</p>	<ul style="list-style-type: none"> <li>Identify how many words can be taught directly over the course of a school year, and develop a rationale for selecting those words, with modifications for ELs.</li> <li>Identify and describe activities designed to teach meaningful relationships among words.</li> <li>Link explicit instruction in prefixes, roots, and suffixes to build knowledge of word meanings.</li> <li>Identify and describe vocabulary-building strategies that are particularly promising for use with ELs.</li> <li>Explain or identify the difference between basic interpersonal communication skills and academic language proficiency for ELs.</li> </ul>	<ul style="list-style-type: none"> <li>Plan and deliver lessons that involve evidence-based shared storybook practices, such as Dialogic Reading, that focus on vocabulary and language enrichment.</li> <li>Know the shortcomings for vocabulary building of activities that require looking up words in a dictionary and writing a sentence with the word.</li> <li>Prioritize words for explicit, in-depth teaching that are central to the meaning of a text or topic and likely to generalize to other contexts (Beck's Tier Two words).</li> <li>Adopt and use a routine for introducing and providing practice with new word meanings.</li> <li>Teach recognition of familiar morphemes, especially in Latin- and Greek-derived words.</li> <li>Teach word relationships, such as antonyms, synonyms, associations, multiple meanings, and shades of meaning.</li> <li>Provide varied practice sufficient for students to use new vocabulary in speaking and writing.</li> <li>Modify instruction for ELs by using visual and tactile-kinesthetic supports, cognates, and additional spoken rehearsal and by teaching high-frequency words.</li> </ul>

STANDARD 4: STRUCTURED LITERACY INSTRUCTION F: LISTENING AND READING COMPREHENSION		
Substandard	Examples of Coursework Expectations	Examples of Practicum or Fieldwork Expectations
4F.1 Know/apply in practice considerations for factors that contribute to deep comprehension.	<ul style="list-style-type: none"> <li>Articulate a framework for comprehension instruction that addresses all major contributors to this domain, including background knowledge, vocabulary, verbal reasoning ability, sentence processing, knowledge of literary structures and conventions, and skills and strategies for close reading of text.</li> </ul>	<ul style="list-style-type: none"> <li>Plan and deliver comprehensive listening and/or reading comprehension lessons that address background knowledge, interpretation of vocabulary and academic language, and text structure using strategies that fit the text.</li> </ul>
4F.2 Know/apply in practice considerations for instructional routines appropriate for each major genre: informational text, narrative text, and argumentation.	<ul style="list-style-type: none"> <li>Contrast the characteristics of the major text genres, including narrative, informational, and argumentation.</li> <li>Identify text features that characterize each major genre, including logical organization, typical connecting or signal words, and style of language.</li> <li>Match graphic organizers, titles, and topic sentences to various text structures (e.g., description, compare/contrast, reason/evidence, time sequence).</li> </ul>	<ul style="list-style-type: none"> <li>Teach students the major differences between narrative and informational texts.</li> <li>Teach and support students in using graphic organizers matched to specific informational text structures during reading and while planning written responses.</li> <li>Teach students to recognize and interpret signal words associated with specific informational and narrative text structures</li> <li>Explicitly teach story grammar and use it to support comprehension and the retelling of narrative.</li> </ul>
4F.3 Know/apply in practice considerations for the role of sentence comprehension in listening and reading comprehension.	<ul style="list-style-type: none"> <li>Define and distinguish among phrases, dependent clauses, and independent clauses in sentence structure.</li> <li>Know techniques of explicit instruction with sentences, such as sentence elaboration, sentence paraphrase, identifying the function of words within a sentence, and sentence combining.</li> <li>Identify phrase, clause, and sentence structures in any text that may pose comprehension challenges, such as figurative language, double negatives, passive voice, embedded clauses, anaphora, and distance between subject and verb.</li> </ul>	<ul style="list-style-type: none"> <li>Teach students how to construct and deconstruct simple, complex, and compound sentences.</li> <li>Use techniques of explicit sentence manipulation, such as sentence elaboration, sentence paraphrase, identifying the function of words within a sentence, and sentence combining, to build syntactic awareness.</li> <li>Teach students how to identify the basic parts of speech and to relate a word's meaning, spelling, and pronunciation to its grammatical role in a sentence.</li> <li>Anticipate challenging language before text reading and prepare to decipher it with students.</li> <li>During an oral reading of text, detect and provide appropriate feedback to students' confusions in comprehension.</li> </ul>

4F.4 Know/apply in practice considerations for the use of explicit comprehension strategy instruction, as supported by research.	<ul style="list-style-type: none"> <li>Identify and describe the comprehension strategies recommended by the National Reading Panel and current IES Practice Guides and for whom and in what contexts they are most likely to improve comprehension.</li> <li>Given a specific text, plan whether and how key strategies might be taught, for example, summarization, question generation, question answering, graphic representation, visualization, guided highlighting, and so forth.</li> </ul>	<ul style="list-style-type: none"> <li>Select and employ specific strategies before, during, and after text reading, as appropriate to the text and the stated purposes for reading.</li> </ul>
4F.5 Know/apply in practice considerations for the teacher's role as an active mediator of text comprehension processes.	<ul style="list-style-type: none"> <li>Understand levels of comprehension processing, including of the surface code (the literal meanings of words), the text base (the meanings underlying the words), and the mental model (the main ideas and details and their connections to each other and to the context).</li> <li>Given a specific text, identify the cohesive devices (pronoun referents, word substitutions, transition words) that are important for comprehension.</li> <li>Given a specific text, generate queries designed to help students construct a mental model of the text's meanings.</li> </ul>	<ul style="list-style-type: none"> <li>Choose high-quality texts for shared reading or reading aloud.</li> <li>Before teaching a text, plan questions that are designed to facilitate inference-making and higher-order reasoning; during reading, use questions strategically to help students clarify, interpret, and build meanings as they read.</li> <li>After reading, ensure that students have understood and can communicate the big ideas or enduring meanings of the text, using a variety of response modes (oral, written, artistic).</li> <li>Plan appropriate adaptations and accommodations that may include the use of technologies to facilitate note-taking, question answering, completion of graphic organizers, or summarization.</li> </ul>

STANDARD 4: STRUCTURED LITERACY INSTRUCTION G: WRITTEN EXPRESSION		
Substandard	Examples of Coursework Expectations	Examples of Practicum or Fieldwork Expectations
4G.1 Understand the major skill domains that contribute to written expression.	<ul style="list-style-type: none"> <li>Compare and contrast the demands of written composition and text comprehension to explain the additional challenges of writing.</li> <li>Describe the not-so-simple model of writing development.</li> <li>Recognize and explain the interdependence of transcription skills and written composition and of reading and writing.</li> <li>Cite the evidence that writing in response to reading helps both reading comprehension and quality of writing.</li> <li>Know grade and developmental expectations for students' writing in the following areas: mechanics and conventions of writing, composition, revision, and editing processes.</li> </ul>	<ul style="list-style-type: none"> <li>Teach both foundational writing skills and composition in writing lessons, devoting grade-appropriate instructional time to each major component.</li> <li>Use shared and supported composition modes while students are learning the skills of transcription (e.g., students compose orally with teacher transcribing).</li> </ul>

<p>4G.2 Know/apply in practice considerations for research-based principles for teaching letter formation, both manuscript and cursive.</p>	<ul style="list-style-type: none"> <li>Identify and rehearse techniques for building handwriting control and legibility, including modeling basic strokes, using verbal descriptions of motor patterns, using numbered arrows, and using appropriate writing implements, posture supports, and paper.</li> <li>Identify and rehearse techniques for building writing fluency.</li> </ul>	<ul style="list-style-type: none"> <li>Use multisensory techniques (e.g., saying and writing together) to teach letter formation.</li> <li>Group letters for practice that require similar motor patterns, and explicitly teach those basic pencil strokes.</li> <li>Model letter formation with visual, motor, and verbal support, lead supervised practice, and provide extended practice with feedback.</li> <li>Adapt instruction and writing materials for left-handed students.</li> <li>Build fluency in letter formation, copying, and transcription through frequent, distributed practice and brief timed activities.</li> </ul>
<p>4G.3 Know/apply in practice considerations for research-based principles for teaching written spelling and punctuation.</p>	<ul style="list-style-type: none"> <li>Recognize and explain the influences of phonological, orthographic, and morphemic knowledge on spelling, so instruction will focus on language structures rather than rote memorization.</li> <li>Identify students' levels of spelling development and orthographic knowledge according to a developmental framework.</li> <li>Identify a progression for teaching punctuation that is related to instruction on phrase and sentence structure and sentence types.</li> <li>Analyze student writing samples and spelling tests to refine instructional targets (e.g., development of phonological awareness, knowledge of spelling rules, awareness of inflectional morphemes).</li> </ul>	<ul style="list-style-type: none"> <li>Select instructional targets that match students' levels of spelling development and that follow a scope and sequence of spelling concepts.</li> <li>Explicitly teach spelling concepts (explain concept, lead practice with feedback, support independent practice).</li> <li>Use or develop practice activities that help students generalize learned words and patterns into writing.</li> <li>Identify helpful apps and other technology that support practice or that would be appropriate for accommodations and modifications.</li> </ul>
<p>4G.4 Know/apply in practice considerations for the developmental phases of the writing process.</p>	<ul style="list-style-type: none"> <li>Identify the specific subskills of each phase of the writing process so each can be explicitly taught (e.g., planning involves selecting a format, having ideas, and having a goal; drafting requires transcription skill and text/word generation; reviewing requires facility with word choice, sentence editing, mechanics, audience awareness, and so forth).</li> <li>Identify research-based instructional practices to support planning, drafting, and revision.</li> </ul>	<ul style="list-style-type: none"> <li>Devote sufficient instructional time to planning, including definition of the goal and expectations, brainstorming of ideas, and anticipation of text format, length, and style.</li> <li>Support transcription with written notes, word banks, graphic organizers, and talking.</li> <li>Support editing and revision with personal or group conferencing, proofreading checklists, and peer-to-peer collaboration.</li> <li>Build a student writing folder and publish selected works in displays or collections.</li> </ul>
<p>4G.5 Know/apply in practice considerations for the appropriate use of assistive technology in written expression.</p>	<ul style="list-style-type: none"> <li>Provide examples of specific assistive technology (types of devices/programs) appropriate to students with varying written expression needs (e.g., poor spelling vs. difficulties with organization/composition).</li> <li>Critically evaluate specific assistive technology devices/programs and their utility for a specific student.</li> </ul>	<ul style="list-style-type: none"> <li>Select and provide access to keyboarding and word-processing instruction as appropriate.</li> <li>Implement assistive technology for writing; make adjustments depending on individual students' needs.</li> </ul>

STANDARD 5: PROFESSIONAL DISPOSITIONS AND PRACTICES	
5.1	Strive to do no harm, maintain confidentiality, and act in the best interest of struggling readers and readers with dyslexia and other reading disorders.
5.2	Maintain the public trust by providing accurate information about currently accepted and scientifically supported best practices in the field.
5.3	Avoid misrepresentation of the efficacy of educational or other treatments or the proof for or against those treatments.
5.4	Respect objectivity by reporting assessment and treatment results accurately, and truthfully.
5.5	Avoid making unfounded claims of any kind regarding the training, experience, credentials, affiliations, and degrees of those providing services.
5.6	Respect the training requirements of established credentialing and accreditation organizations supported by CERI and IDA.
5.7	Avoid conflicts of interest when possible and acknowledge conflicts of interest when they occur.
5.8	Support just treatment of individuals with dyslexia and related learning difficulties.
5.9	Respect confidentiality of students or clients.
5.10	Respect the intellectual property of others.

## SUPPORTING EVIDENCE AND REFERENCES<sup>1</sup>

### STANDARD 1: Foundations of Literacy Acquisition

An extensive research base exists on the abilities that are important in learning to read and write, including how these abilities interact, how they are influenced by experience and instruction, and how the relative importance of various abilities tends to shift across development. Even before formal literacy instruction begins, certain risk indicators, such as poor phonological sensitivity or a history of early language delay, can predict which children are likely to require especially close monitoring and intervention. Moreover, evidence suggests that certain educational practices, such as universal screening, evidence-based general education instruction, and prompt intervention, can prevent or ameliorate many literacy problems. For both general and special educators, knowledge of this research base on literacy development and literacy difficulties forms an essential foundation for the competencies and skills described in subsequent sections of this document.

In addition, familiarity with the systems of language is required to implement Structured Literacy instruction. Formal knowledge about language structures—recognizing, for example, whether words are phonetically regular or irregular; common morphemes in words; common sentence structures in English; and how different types of texts are organized—enables teachers to interpret assessments, present lesson concepts clearly, select appropriate examples of concepts, and provide corrective feedback to students. Teachers’ understanding of language structure is essential to providing effective instruction in writing and reading. Research suggests that acquiring an understanding of language structure often requires explicit teaching of this information and more than superficial coverage in teacher preparation and professional development.

- Brady, S., Gillis, M., Smith, T., Lavalette, M., Liss-Bronstein, L., Lowe, E., et al. (2009). First grade teachers' knowledge of phonological awareness and code concepts: Examining gains from an intensive form of professional development. *Reading and Writing: An Interdisciplinary Journal*, 22, 375–510.
- Adams, M. (1990). *Beginning to read: Learning and thinking about print*. Cambridge, MA: MIT Press.
- Bickart, T. (1998). *Summary report of preventing reading difficulties in young children* (National Academy of Sciences). Washington, DC: U.S. Department of Education.
- Carlisle, J. F., Kelcey, B., & Berebitsky, D. (2013). Teachers’ support of students’ vocabulary learning during literacy instruction in high poverty elementary schools. *American Educational Research Journal*, 50, 1360-1391.
- Crawford, E. C., & Torgesen, J. K. (2006, July). *Teaching all children to read: Practices from Reading First schools with strong intervention outcomes*. Presented at the Florida Principal’s Leadership Conference, Orlando. Retrieved from <http://www.fcrr.org/science/sciencePresentationscrawford.ht>
- Cunningham, A. E., & Stanovich, K. E. (1997). Early reading acquisition and its relation to reading experience and ability ten years later. *Developmental Psychology*, 33, 934–945.
- Denton, C. A., Fletcher, J. M., Anthony, J. L., & Francis, D. J. (2006). An evaluation of intensive intervention for students with persistent reading difficulties. *Journal of Learning Disabilities*, 39, 447–466.

---

<sup>1</sup> This reference list is neither comprehensive nor exhaustive. References are offered as examples of the literature supporting the rationale for and the validity of each standard. Many other sources could be referenced in courses and texts aligned with this document.

- Fletcher, J. M., Lyon, G. R., Fuchs, L. S., & Barnes, M. A. (in press). *Learning disabilities: From identification to Intervention, 2nd Ed.* New York: Guilford Press.
- Foorman, B., Beyer, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., et al. (2016). *Foundational skills to support reading for understanding in kindergarten through 3<sup>rd</sup> grade* (NCEE 2016-4008). U.S. Department of Education. Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. Washington, DC: Government Printing Office.
- Hudson, R. R., High, L., & Al Otaiba, S. (2007). Dyslexia and the brain: What does current research tell us? *The Reading Teacher, 60*(6), 506–515.
- McCardle, P., & Chhabra, V. (2004). *The voice of evidence in reading research.* Baltimore: Brookes Publishing.
- McCutchen, D., Green, L., Abbott, R. D., & Sanders, E. A. (2009). Further evidence for teacher knowledge: Supporting struggling readers in grades three through five. *Reading and Writing: An Interdisciplinary Journal, 22*, 401-423.
- Moats, L. C. (2010). *Speech to print: Language essentials for teachers, 2nd Ed.* Baltimore: Brookes Publishing.
- Mol, S. E., & Bus, A. G. (2011). To read or not to read: A meta-analysis of print exposure from infancy to early adulthood. *Psychological Bulletin, 137*, 267–296.
- National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction.* Washington, DC: National Institutes of Health.
- Olson, R. K. (2004). SSSR, environment, and genes. *Scientific Studies of Reading, 8*(2), 111–124.
- Seidenberg, M. (2017). *Language at the speed of sight: How we read, why so many can't, and what can be done about it.* New York, NY: Basic Books.
- Snow, C., Griffin, P., & Burns, S. (2006). *Knowledge to support the teaching of reading.* San Francisco: Jossey- Bass.
- Spear-Swerling, L., & Brucker, P. (2004). Preparing novice teachers to develop basic reading and spelling skills in children. *Annals of Dyslexia, 54*, 332–364.
- Spear-Swerling, L., & Cheesman, E. (2012). Teachers' knowledge base for implementing response-to-intervention models in reading. *Reading & Writing: An Interdisciplinary Journal, 25*, 1691–1723.
- Stanovich, K. E. (2000). *Progress in understanding reading: Scientific foundations and new frontiers.* New York: Guilford Press.
- Stone, A. C., Silliman, E. R., Ehren, B. J., & Apel, K. (Eds.). (2014). *Handbook of language and literacy: Development and disorders, 2nd Ed.* New York: Guilford Press.
- Vellutino, F. R., Tunmer, W. E., Jaccard, J. J., & Chen, R. (2007). Components of reading ability: Multivariate evidence for a convergent skills model of reading development. *Scientific Studies of Reading, 11*(1), 3–32.
- Wolf, M. (2007). *Proust and the squid: The story and science of the reading brain.* New York: HarperCollins.
- Zipoli, R., & Merritt, D. (2016). Risk of reading difficulty among children with a history of speech or language impairment: Implications for student support teams. *Preventing School Failure: Alternative Education for Children and Youth.* doi:10.1080/1045988X.2016.1202180

## STANDARD 2: Knowledge of Diverse Reading Profiles, Including Dyslexia

A well-prepared teacher will expect that students' reading, writing, and language profiles will vary and that a single approach to instruction is unlikely to match the needs of all students. Some students will learn readily and will benefit from more emphasis on centers and independent reading. Some students will have specific problems learning phonemic awareness, phonics, spelling, and decoding, whereas other students may be relatively strong at using phonics but relatively weak in vocabulary, language comprehension, or the text generation aspects of writing. Still others may have a specific and pronounced problem developing automatic recognition of words and may be very slow readers. These subgroups can be supported with small-group instruction delivered under an RTI (MTSS) framework that bolsters their weaker skill areas.

To identify children with dyslexia and other learning disabilities, teachers must understand and recognize the key symptoms of these disorders and how the disorders differ. To plan instruction and detect older students with learning disabilities who may have been overlooked in the early grades, teachers should also understand how students' difficulties may change over time, based on developmental patterns, experience, and instruction, along with increases in expectations across grades.

- Aaron, P. G., Joshi, R. M., Gooden, R., & Bentum, K. (2008). Diagnosis and treatment of reading disabilities based on the component model of reading: An alternative to the discrepancy model of LD. *Journal of Learning Disabilities, 41*, 67–84.
- Catts, H. W., Adlof, S. M., & Weismer, S. E. (2006). Language deficits in poor comprehenders: A case for the simple view of reading. *Journal of Speech, Language, and Hearing Research, 49*(2), 278–293.
- Catts, H. W., Compton, D. L., Tomblin, J. B., & Bridges, M. S. (2012). Prevalence and nature of late-emerging poor readers. *Journal of Educational Psychology, 104*(2), 166–181.
- Compton, D. L., Fuchs, L. S., Fuchs, D., Lambert, W., & Hamlett, C. (2012). The cognitive and academic profiles of reading and mathematics learning disabilities. *Journal of Learning Disabilities, 45*(1), 79–95.
- Ehri, L. C., Cardoso-Martins, C., & Carroll, J. M. (2014). Developmental variation in reading words. *Science Direct, 35*(5), 1098–1109.
- Fletcher, J. M., Lyon, G. R., Fuchs, L. S., & Barnes, M. A. (in press). *Learning disabilities: From identification to intervention, 2nd Ed.* New York: Guilford Press.
- Hulme, C., & Snowling, M. (2009) *Developmental disorders of language, learning, and cognition.* Oxford, England: Wiley-Blackwell.
- Kieffer, M. J. (2010). Socioeconomic status, English proficiency, and late-emerging reading difficulties. *Educational Researcher, 39*, 484–486.
- Leach, J. M., Scarborough, H. S., & Rescorla, L. (2003). Late-emerging reading disabilities. *Journal of Educational Psychology, 95*, 211–224.
- Lipka, O., Lesaux, N., & Siegel, L. (2006). Retrospective analyses of the reading development of grade 4 students with reading disabilities: Risk status and profiles over 5 years. *Journal of Learning Disabilities, 39*, 364–378.
- Lyon, R., Shaywitz, S., & Shaywitz, B. (2003). A definition of dyslexia. *Annals of Dyslexia, 53*, 1–14.
- Moats, L. C., & Dakin, K. (2007). *Basic facts about dyslexia.* Baltimore: The International Dyslexia Association.
- Shaywitz, S. (2003). *Overcoming dyslexia: A new and complete science-based program for reading problems at any level.* New York: Knopf.
- Spear-Swerling, L. (2015). *The power of RTI and reading profiles: A blueprint for solving reading problems.* Baltimore, MD: Brookes Publishing.
- Washburn, E. K., Joshi, R. M., & Binks-Cantrell, E. S. (2011). Teacher knowledge of basic language concepts and dyslexia. *Dyslexia, 17*, 165–183.

Wolf, M., & Bowers, P. G. (1999). The double-deficit hypothesis for the developmental dyslexias. *Journal of Educational Psychology, 91*, 415–438.

### **STANDARD 3: Assessment**

Teachers' ability to administer and interpret assessments accurately is essential both to the early identification of students' learning problems and to planning effective instruction. Appropriate assessments enable teachers to recognize early signs that a child may be at risk for dyslexia or other learning disabilities, and the assessments permit teachers to target instruction to meet individual students' needs. Teachers should understand that there are different types of assessments for different purposes (e.g., brief but frequent assessments to monitor progress versus more lengthy, comprehensive assessments to provide detailed diagnostic information) and be able to recognize which type of assessment is called for in a particular situation. Teachers need to know where to find unbiased information about the adequacy of published tests; to interpret this information correctly, they require an understanding of basic principles of test construction and concepts such as reliability and validity. They should also understand how an individual student's component profile may influence his or her performance on a particular test, especially on broad measures of reading comprehension and written expression. For example, a child with very slow reading is likely to perform better on an untimed measure of reading comprehension than on a stringently timed measure; a child with writing problems may perform especially poorly on a reading comprehension test that requires lengthy written responses to open-ended questions. In addition, to implement assessments effectively within an RTI (MTSS) framework, educators must understand certain issues involved in screening and progress monitoring large groups of students. These issues include the value of two-stage screening, appropriate selection and interpretation of progress-monitoring assessments, and signs that a student should be referred for comprehensive evaluation for special education (e.g., early language delay or family history of dyslexia, in a student who is not showing a robust response to intervention). Because fluency is a useful predictor of overall reading competence, especially in elementary-aged students, a variety of fluency tasks have been developed for use in screening and progress monitoring, most notably in CBMs. General and special educators should know how CBMs differ from other types of curriculum-based assessments (e.g., they are quick-timed probes that correlate well with overall competence in a domain), and they should recognize the features that make CBMs particularly useful in screening and progress monitoring (e.g., they come in multiple equivalent forms and are sensitive to incremental progress).

- Compton, D. L., Fuchs, D., Fuchs, L. S., Bouton, B., Gilbert, J. K., Barquero L. A., & Crouch R. C. (2010). Selecting at-risk first-grade readers for early intervention: Eliminating false positives and exploring the promise of a two-stage gated screening process. *Journal of Educational Psychology, 102*, 327–341.
- Cutting, L. E., & Scarborough, H. S. (2006). Prediction of reading comprehension: Relative contributions of word recognition, language proficiency, and other cognitive skills can depend on how comprehension is measured. *Scientific Studies of Reading, 10*, 277–299.
- Farrall, M. L. (2012). *Reading assessment: Linking language, literacy, and cognition*. Hoboken, NJ: John Wiley & Sons.
- Fuchs, D., Fuchs, L. S., & Compton, D. L. (2012). Smart RTI: A next-generation approach to multilevel prevention. *Exceptional Children, 78*, 263–279.
- Fuchs, L. S., & Vaughn, S. (2012). Responsiveness to intervention: A decade later. *Journal of Learning Disabilities, 45*, 195–203.
- Good, R. H., Simmons, D. C., & Kame'enui, E. J. (2001). The importance and decision-making utility of a continuum of fluency-based indicators of foundational reading skills for third-grade high-stakes outcomes. *Scientific Studies of Reading, 5*, 257–288.

- Hasbrouck, J., & Haager, D. (Eds.). (2007). Monitoring children's progress in academic learning. *Perspectives on Language and Literacy* 33(2).
- Hogan, T. P., Catts, H. W., & Little, T. D. (2005). The relationship between phonological awareness and reading: Implications for the assessment of phonological awareness. *Language, Speech, and Hearing Services in Schools*, 36, 285–293.
- Hosp, M. K., Hosp, J. L., & Howell, K. W. (2016). *The ABCs of CBM: A practical guide to curriculum-based measurement*. New York, NY: Guilford.
- Jenkins, J. R., Johnson, E., & Hileman, J. (2004). When is reading also writing: Sources of individual differences on the new reading performance assessments. *Scientific Studies of Reading*, 8, 125–152.
- Johnson, E. S., Jenkins, J. R., Petscher, Y., & Catts, H. W. (2009). How can we improve the accuracy of screening instruments? *Learning Disabilities Research & Practice*, 24, 174–185.
- Keenan, J. M., Betjemann, R. S., & Olson, R. K. (2008). Reading comprehension tests vary in the skills they assess: Differential dependence on decoding and oral comprehension. *Scientific Studies of Reading*, 12, 281–300.
- Kilpatrick, D. (2015). *Essentials of assessing, preventing, and overcoming reading difficulties*. Hoboken, NJ: Wiley.
- Pennington, B. (2009). *Diagnosing learning disorders* (2nd ed.). New York: Guilford Press.
- Shinn, M. R. (2008). Best practices in using curriculum-based measurement in a problem-solving model. In A. Thomas, & J. Grimes (Eds.), *Best practices in school psychology* (pp. 671–697). Bethesda, MD: National Association of School Psychologists.
- Torgesen, J. K. (2004). Avoiding the devastating downward spiral: The evidence that early intervention prevents reading failure. *American Educator*, 28(3), 6–9, 12–13, 17–19, 45–47.

#### **STANDARD 4, Substandard A: Essential Principles and Practices of Structured Literacy Instruction**

Structured Literacy teaching can be contrasted with meaning-emphasis, child-centered, incidental instruction in which foundational skills are generally not emphasized, even for children at the earliest stages of learning to read and write. Structured Literacy involves teaching language concepts in an explicit, systematic, cumulative manner, according to a planned scope and sequence of skill development. Structured Literacy approaches emphasize direct interaction with a teacher who provides clear explanations and modeling of new skills and concepts; prompt, unambiguous, corrective feedback to errors; and application of decoding skills in texts that lend themselves to decoding, rather than texts containing many words that beginners will be unable to decode. In these approaches, spelling instruction is well coordinated with decoding instruction, and higher levels of literacy—such as syntax, paragraph organization, and discourse structure—are also taught systematically. In contrast, most approaches to teaching literacy that are commonly used in schools lack these features. Structured Literacy approaches are especially valuable for students with reading disabilities such as dyslexia; however, many other children can also benefit from these approaches, including ELs and children at risk in reading due to limited experiences with literacy and academic language.

- Archer, A., & Hughes, C. A. (2011). *Explicit instruction: Effective and efficient teaching*. New York, NY: Guilford Press.
- Birsh, J. (Ed.) (2011). *Multisensory teaching of basic language skills, 3rd Ed.* Baltimore: Brookes Publishing.

- Moats, L. C. (2017). Can prevailing approaches to reading instruction accomplish the goals of RTI? *Perspectives on Language and Literacy*, 43, 15–22.
- Moats, L. C., Dakin, K., & Joshi, M. (Eds.) (2012). *Expert perspectives on interventions for reading*. Baltimore, MD: International Dyslexia Association.
- Rivera, M. O., Moughamian, A. C., Lesaux, N. K., & Francis, D. J. (2008). *Language and reading interventions for English language learners and English language learners with disabilities*. Portsmouth, NH: RMC Research Corporation, Center on Instruction.
- Spear-Swerling, L. (in press). Structured literacy and typical literacy practices: Understanding differences to create instructional opportunities. *Teaching Exceptional Children*.

#### **STANDARD 4, Substandard B: Structured Literacy Instruction—Phonological Awareness, Phonological Sensitivity, Phonemic Awareness**

Phonological sensitivity (awareness of rhyme, alliteration, syllables, and larger chunks of words) and phonemic awareness are essential foundations for reading and writing. All children benefit from explicit teaching of consonant and vowel phonemes apart from, but connected to, the letters that represent them. Without early, research-based intervention, children who struggle with speech-sound awareness are likely to have difficulty learning to use phonics for decoding, remembering the pronunciation of words (especially when they sound similar), and spelling. Furthermore, poor phonological awareness is a core weakness in dyslexia. Ample research exists to inform the teaching of phonological awareness, including research on the phonological skills to emphasize in instruction, appropriate sequencing of instruction, methods to help students identify phonemes, such as the use of articulatory cues, and integrating instruction in phonological awareness with instruction in alphabet knowledge. Educators who understand how to teach these foundational skills effectively can prevent or ameliorate many children’s reading problems, including those of students with dyslexia.

- Adams, M., Foorman, B. R., Lundberg, I., & Beeler, T. (Spring/Summer, 1998). The elusive phoneme: Why phonemic awareness is so important and how to help children develop it. *American Educator*, 22(1 & 2), 18–29.
- Boyer, N., & Ehri, L. C. (2011). Contribution of phonemic segmentation instruction with letters and articulation pictures to word reading and spelling in beginners. *Scientific Studies of Reading*, 15(5), 440–470.
- Brady, S. & Shankweiler, D. (Eds.). (1991). *Phonological processes in literacy: A tribute to Isabelle Y. Liberman*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gillon, G. (2004). *Phonological awareness: From research to practice*. New York: Guilford Press.
- Kilpatrick, D. (2015). *Essentials of assessing, preventing, and overcoming reading difficulties*. Hoboken, NJ: Wiley.
- Moats, L.C. & Tolman, C. A. (2018). *Language essentials for teachers of reading and spelling (LETRS)*, 3rd Ed. Dallas, TX: Voyager Sopris Learning.
- Neuman, S. B., & Dickinson, D. K. (2002). *Handbook of early literacy research*. New York: Guilford Press.
- Scarborough, H. S., & Brady, S. A. (2002). Toward a common terminology for talking about speech and reading: A glossary of the ‘phon’ words and some related terms. *Journal of Literacy Research*, 34, 299–334.

## STANDARD 4, Substandard C: Structured Literacy Instruction—Phonics and Word Recognition

The development of accurate word-decoding skills is an essential foundation for reading fluency and reading comprehension in all students. Word decoding is the ability to read unfamiliar words by applying knowledge of sounds for letters, letter patterns (e.g., *sh, igh, ar*), and the alphabetic code. At more advanced stages of word reading, decoding also requires knowledge of syllabication strategies (e.g., dividing between two consonants in a word with a VCCV pattern, such as *lantern*) and the ability to recognize common morphemes in words (e.g., *un-, mis-, -ed, -ing, -able*). These kinds of skills are often a central weakness for students with poor reading, including those with dyslexia. The ability of both general and special educators to provide explicit, systematic, appropriately sequenced instruction in decoding is indispensable to meet the needs of students with dyslexia and to help prevent reading problems in other at-risk children and beginning readers in general. Educators should know that recent, post-NRP evidence favors synthetic, parts-to-whole approaches to decoding over inductive, whole-word approaches (e.g., word families). They should also recognize the importance of students' opportunities to apply their developing decoding skills in reading connected text, including oral reading with feedback from a teacher. Teacher feedback should emphasize attention to the print and application of decoding skills rather than guessing at words based on pictures or sentence context. Finally, teachers should understand the usefulness of multisensory, multimodal techniques in focusing students' attention on printed words, engaging students, and enhancing memory.

- Blachman, B. A., Schatschneider, C., Fletcher, J. M., Francis, D. J., Clonan, S., Shaywitz, B., et al. (2004). Effects of intensive reading remediation for second and third graders. *Journal of Educational Psychology, 96*, 444–461.
- Brady, S. (2011). Efficacy of phonics teaching for reading outcomes: Implications from post-NRP research. In S. A. Brady, D. Braze, & C. Fowler (Eds.), *Explaining individual differences in reading: Theory and evidence* (pp. 69–96). New York, NY: Psychology Press.
- Calhoun, M. B. (2005). Effects of a peer-mediated phonological skill and reading comprehension program on reading skill acquisition for middle school students with reading disabilities. *Journal of Learning Disabilities, 38*(5), 424–433.
- Carlisle, J. F. (2010). An integrative review of the effects of instruction in morphological awareness on literacy achievement. *Reading Research Quarterly, 45*, 464–487.
- Connor, C. M., Morrison, F. J., & Underwood, P. S. (2007). A second chance in second grade: The independent and cumulative impact of first- and second-grade reading instruction and students' letter-word reading skill growth. *Scientific Studies of Reading, 11*, 199–233.
- Christensen, C. A., & Bowey, J. A. (2005). The efficacy of orthographic rime, grapheme-phoneme correspondence, and implicit phonics approaches to teaching decoding skills. *Scientific Studies of Reading, 9*, 327–349.
- Daane, M. C., Campbell, J. R., Grigg, W. S., Goodman, M. J., & Oranje, A. (2005). *Fourth-grade students reading aloud: NAEP 2002 Special Study of Oral Reading* (NCES 2006-469). U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics. Washington, DC: Government Printing Office.
- Ehri, L. C. (2014). Orthographic mapping in the acquisition of sight word reading, spelling memory, and vocabulary learning. *Scientific Studies of Reading, 18*(1), 5–21. In P. McCardle & V. Chhabra (Eds.), *The voice of evidence in reading research* (pp. 153–186). Baltimore: Brookes Publishing.
- Goodwin, A. P., & Ahn, S. (2013). A meta-analysis of morphological interventions in English: Effects on literacy outcomes for school-age children. *Scientific Studies of Reading, 17*, 257–285.

- Grace, K. (2006). *Phonics and spelling through phoneme-grapheme mapping*. Longmont, CO: Sopris West.
- Henry, M. (2010). *Unlocking literacy: Effective decoding and spelling instruction, 2nd ed.* Baltimore: Brookes Publishing.
- Joseph, L. M., & Schisler, R. (2009). Should adolescents go back to the basics? A review of teaching word reading skills to middle and high school students. *Remedial and Special Education, 30*(3), 131–147.
- Lovett, M. W., Lacerenza, L., DePalma, M., & Frijters, J. C. (2012). Evaluating the efficacy of remediation for struggling readers in high school. *Journal of Learning Disabilities, 45*(2), 151–169.
- Mathes, P. G., Denton, C. A., Fletcher, J. M., Anthony, J. L., Francis, D. J., & Schatschneider, C. (2005). The effects of theoretically different instruction and student characteristics on the skills of struggling readers. *Reading Research Quarterly, 40*, 148–182.
- McCandliss, B., Beck, I. L., Sandak, R., & Perfetti, C. (2003). Focusing attention on decoding for children with poor reading skills: Design and preliminary tests of the word building intervention. *Scientific Studies of Reading, 7*, 75–104.
- Moats, L. C. (1998). Teaching decoding. *American Educator, 22*(1&2), 42–49, 95–96.
- Torgesen, J. K. (2004). Lessons learned from research on interventions for students who have difficulty learning to read. In P. McCardle & V. Chhabra (Eds.), *The voice of evidence in reading research* (pp. 355–381). Baltimore: Brookes Publishing.
- Vadasy, P. F., Sanders, E. A., & Peyton, J. A. (2005). Contributions of reading practice to first-grade supplemental tutoring: How text matters. *Journal of Learning Disabilities, 38*, 364–380.

#### **STANDARD 4, Substandard D: Structured Literacy Instruction—Automatic, Fluent Reading of Text**

Reading fluency is the ability to read text effortlessly, quickly, and accurately. Good reading fluency is also characterized by appropriate prosody (e.g., intonation and phrasing) in oral reading. Fluency develops among typical readers in the primary grades and is important because lack of fluency tends to drain students' reading comprehension and motivation to read; poor fluency also makes it difficult for students to keep up with increasing demands for reading volume in the middle and secondary grades. Problems with reading fluency is a very common symptom of dyslexia and other reading disabilities, and these problems can linger even when students' accuracy in word decoding has been improved through effective phonics intervention. Although fluency difficulties may sometimes be associated with processing weaknesses, considerable research supports the role of practice, wide exposure to printed words, and focused instruction in the development and remediation of fluency. To address students' fluency needs, teachers must have a range of competencies, including the ability to interpret fluency-based measures appropriately, place students in appropriate types and levels of texts for reading instruction, stimulate students' independent reading, and provide systematic fluency interventions for students who require them. Teachers should also recognize when a student's fluency difficulties relate to language comprehension factors rather than to decoding, as when a student decodes individual words accurately and automatically but reads text slowly because he or she is struggling to understand meaning. Assistive technology (e.g., text-to-speech software) is often employed to help students with serious fluency difficulties function in general education settings. Therefore, teachers, and particularly specialists, require knowledge about the appropriate uses of this technology.

- Carreker, S. (2005). Teaching reading: Accurate decoding and fluency. In J. Birsh (Ed.), *Multisensory teaching of basic language skills* (2nd ed., pp. 213–255). Baltimore: Brookes Publishing.

- Chard, D., Vaughn, S., & Tyler, B. (2002). A synthesis of research on effective interventions for building fluency with elementary students with learning disabilities. *Journal of Learning Disabilities, 35*, 386–406.
- Cunningham, A. E., & Stanovich, K. E. (1998). What reading does for the mind. *American Educator, 22*(1&2), 8–15.
- Connor, C. M., Morrison, F. J., & Katch, L. E. (2004). Beyond the reading wars: Exploring the effect of child-instruction interactions on growth in early reading. *Scientific Studies of Reading, 8*, 305–336.
- Cutting, L. E., Materek, A., Cole, C., Levine, T., & Mahone, E. M. (2009). Effects of fluency, oral language, and executive function on reading comprehension performance. *Annals of Dyslexia, 59*, 34–54.
- Ehri, L. C. (1997). Sight word learning in normal readers and dyslexics. In B. Blachman (Ed.), *Foundations of reading acquisition and dyslexia* (pp. 163–189). Mahwah, NJ: Erlbaum.
- Fuchs, L. S., Fuchs, D., Hosp, M. K., & Jenkins, J. (2001). Oral reading fluency as an indicator of reading competence: A theoretical, empirical, and historical analysis. *Scientific Studies of Reading, 5*(3), 239–256.
- Hamilton, C., & Shinn, M. R. (2003). Characteristics of word callers: An investigation of the accuracy of teachers' judgments of reading comprehension and oral reading skills. *School Psychology Review, 32*(2), 228–240.
- Hasbrouck, J. E., & Tindal, G. A. (2017). *An Update to Compiled Oral Reading Fluency Norms, Technical Report #1702*. Eugene, OR: Behavioral Research and Teaching, University of Oregon. <http://brt.uoregon.edu>
- Hudson, R. F., Lane, H. B., & Pullen, P. C. (2005). Reading fluency assessment and instruction: What, why, and how? *The Reading Teacher, 58*, 702–714.
- Katzir, T., Kim, Y., Wolf, M., O'Brien, B., Kennedy, B., Lovett, M., et al. (2006). Reading fluency: The whole is more than the parts. *Annals of Dyslexia, 56*(1), 51–82.
- Kuhn, M. (2004/2005). Helping students become accurate, expressive reading: Fluency instruction for small groups. *The Reading Teacher, 58*(4), 338–345.
- Kuhn, M. R., Schwanenflugel, P. J., & Meisinger, E. B. (2010). Aligning theory and assessment of reading fluency: Automaticity, prosody, and definitions of fluency. *Reading Research Quarterly, 45*, 230–251.
- Meyer, M. (Winter, 2002). Repeated reading: An old standard is revisited and renovated. *Perspectives* (The International Dyslexia Association Quarterly Newsletter), 15–18.
- Meyer, M. S., & Felton, R. H. (1999). Repeated reading to enhance fluency: Old approaches and new directions. *Annals of Dyslexia, 49*, 293–306.
- Speece, D. L., & Ritchey, K. D. (2005). A longitudinal study of the development of oral reading fluency in young children at risk for reading failure. *Journal of Learning Disabilities, 38*(5), 387–399.
- Torgesen, J., Alexander, A. W., Wagner, R., Rashotte, C. A., Voeller, K., Conway, T., et al. (2001). Intensive remedial instruction for children with severe reading disabilities: Immediate and long-term outcomes from two instructional approaches. *Journal of Learning Disabilities, 34*, 33–58.
- Valencia, S. W., Smith, A. T., Reece, A. M., Li, M., Wixson, K. K., & Newman, H. (2010). Oral reading fluency assessment: Issues of construct, criterion, and consequential validity. *Reading Research Quarterly, 45*, 270–291.

## STANDARD 4, Substandard E: Structured Literacy Instruction—Vocabulary

Vocabulary, or knowledge of word meanings, plays a key role in reading comprehension. Knowledge of words is multifaceted, ranging from partial recognition of the meaning of a word to deep knowledge and the ability to use the word effectively in speech or writing. Research supports both explicit, systematic teaching of word meanings and indirect methods of instruction, such as those involving inferring meanings of words from sentence context or from morphology (e.g., word parts, such as common roots and affixes). Teachers should understand the importance of vocabulary to overall reading comprehension, and they should recognize populations of children who are especially likely to be at risk in the area of vocabulary, such as ELs and children with limited exposure to literacy at home. Both general and special educators should know how to develop students' vocabulary knowledge through direct and indirect methods. They should also recognize the importance of a wide exposure to words, both orally and through reading, in students' vocabulary development. For example, although oral vocabulary knowledge frequently is a strength for students with dyslexia, over time, a low volume of reading may tend to reduce these students' exposure to rich vocabulary relative to their typical peers; explicit teaching of word meanings and encouragement of wide independent reading in appropriate texts are two ways to help increase this exposure.

- Beck, I. L., McKeown, M. G., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York: Guilford Press.
- Biemiller, A. (2009). *Words worth teaching: Closing the vocabulary gap*. Columbus, OH: SRA/McGraw Hill.
- Biemiller, A., & Boote, C. (2006). An effective method for building meaning vocabulary in primary grades. *Journal of Educational Psychology, 98*, 44–62.
- Carlisle, J. F., Kelcey, B., & Berebitsky, D. (2013). Teachers' support of students' vocabulary learning during literacy instruction in high poverty elementary schools. *American Educational Research Journal, 50*, 1360–1391.
- Diamond, L., & Gutlohn, L. (2006). *Vocabulary handbook*. Berkeley, CA: Consortium on Reading Excellence.
- Ebbers, S. (2006). *Vocabulary through morphemes*. Longmont, CO: Sopris West.
- Gersten, R., Baker, S. K., Shanahan, T., Linan-Thompson, S., Collins, P., & Scarcella, R. (2007). *Effective literacy and English language instruction for English learners in the elementary grades: A practice guide (NCEE 2007-4011)*. Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Graves, M. (2006). *The vocabulary book: Learning and instruction*. New York: Teachers College Press, Columbia University.
- Hirsch, E. D. (2006). *The knowledge deficit: Closing the shocking education gap for American children*. Boston: Houghton Mifflin.
- Kamil, M. (2004). Vocabulary and comprehension instruction: Summary and implications of the National Reading Panel findings. In P. McCardle and V. Chhabra (Eds.), *The voice of evidence in reading research* (pp. 213–234).
- Loftus, S. M., Coyne, M. D., McCoach, B., Zipoli, R., & Pullen, P. C. (2010). Effects of a supplemental vocabulary intervention on the word knowledge of kindergarten students at risk for language and literacy difficulties. *Learning Disabilities Research & Practice, 25*, 124–136.
- Neuman, S. B., & Wright, T. S. (2013). *All about words: Increasing vocabulary in the Common Core classroom (PreK–2)*. New York, NY: Teachers College Press.
- Paynter, D. E., Bodrova, E., & Doty, J. K. (2005). *For the love of words: Vocabulary instruction that works, Grades K–6*. San Francisco: Jossey-Bass.

- Riedel, B. W. (2007). The relation between DIBELS, reading comprehension, and vocabulary in urban first-grade students. *Reading Research Quarterly*, 42, 546–567.
- Stahl, S. A., & Nagy, W. E. (2006) *Teaching word meanings*. Mahwah, NJ: Erlbaum.
- Tannenbaum, K. R., Torgesen, J. T., & Wagner, R. K. (2006). Relationships between word knowledge and reading comprehension in 3rd grade children. *Scientific Studies of Reading*, 10, 381–398.

## **STANDARD 4, Substandard F: Structured Literacy Instruction—Listening and Reading Comprehension**

Good reading comprehension is the ultimate goal of reading instruction. Reading comprehension depends not only upon the component abilities discussed in previous sections, but also upon other factors, such as background knowledge, comprehension of syntax, and knowledge of text structure. To plan effective instruction and intervention in reading comprehension, teachers must understand the array of abilities that contribute to reading comprehension and use assessments to help pinpoint students’ weaknesses. For instance, a typical student with dyslexia, whose reading comprehension problems are associated mainly with poor decoding and dysfluent reading, will need different emphases in intervention than will a student with poor comprehension whose problems revolve around broad weaknesses in vocabulary and oral comprehension. In addition, teachers must be able to model and teach research-based comprehension strategies, such as summarization and the use of graphic organizers, and use methods that promote reflective reading and engagement. Oral comprehension and reading comprehension have a reciprocal relationship; good oral comprehension facilitates reading comprehension, but wide reading also contributes to the development of oral comprehension, especially in older students. Teachers should understand the relationships among oral language, reading comprehension, and written expression, and they should be able to use appropriate writing activities to build students’ comprehension. They should also recognize the importance of including oral interventions (and reading interventions) in helping students who have difficulties with comprehension.

- Barnes, M. A., Johnston, A. M., & Dennis, M. (2007). Comprehension in a neurodevelopmental disorder, Spina Bifida Myelomeningocele. In K. Cain & J. V. Oakhill (Eds.), *Children’s comprehension problems in oral and written language: A cognitive perspective* (pp. 193–217). New York: Guilford Press.
- Beck, I. L., & McKeown, M. G. (2006). *Improving comprehension with questioning the author: A fresh and expanded view of a powerful approach*. New York: Scholastic.
- Caccamise, D., & Snyder, L. (Eds.). (2009). Reading comprehension: Issues and instructional applications. *Perspectives on Language and Literacy*, 35(2).
- Cain, K., & Oakhill, J. V. (2007). Reading comprehension difficulties: Correlates, causes, and consequences. In K. Cain & J. V. Oakhill (Eds.), *Children’s comprehension problems in oral and written language: A cognitive perspective* (pp. 81–103) New York: Guilford Press.
- Cardenas-Hagan, E. (2016). Listening comprehension: Special considerations for English learners. *Perspectives on Language and Literacy*, 42(3), 31–35.
- Carlisle, J. R., & Rice, M. S. (2002). *Improving reading comprehension: Research-based principles and practices*. Baltimore: York Press.
- Clarke, P. J., Snowling, M. J., Truelove, E., & Hulme, C. (2010). Ameliorating children’s reading-comprehension difficulties: A randomized controlled trial. *Psychological Science*, 21, 1106–1116.
- Cunningham, A. E., & Stanovich, K. E. (1998). What reading does for the mind. *American Educator*, 22, 8–15.
- Gattardo, A., Stanovich, K., & Siegel, L. (1996). The relationships between phonological sensitivity, syntactic processing, and verbal working memory in the reading performance of third-grade

- children. *Journal of Experimental Child Psychology*, 63, 563–582.
- Gersten, R., Fuchs, L. S., Williams, J. P., & Baker, S. (2001). Teaching reading comprehension strategies to students with learning disabilities: A review of research. *Review of Educational Research*, 71, 279–320.
- Graesser, A. C. (2008). An introduction to strategic reading comprehension. In D. S. McNamara (Ed.), *Reading comprehension strategies: Theories, intervention and technologies* (pp. 3–26). New York: Erlbaum.
- Hirsch, E. D. (2006). Building knowledge: The case for bringing content into the language arts block and for a knowledge-rich curriculum core for all children. *American Educator*, 30(1), 8–21, 28–29, 50–51.
- Kamil, M. (2004). Vocabulary and comprehension instruction: Summary and implications of the National Reading Panel findings. In P. McCardle & V. Chhabra (Eds.), *The voice of evidence in reading research* (pp. 213–234). Baltimore: Brookes Publishing.
- Kamil, M. L., Borman, G. D., Dole, J., Kral, C. C., Salinger, T., & Torgesen, J. (2008). *Improving adolescent literacy: Effective classroom and intervention practices: A Practice Guide* (NCEE #2008-4027). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <http://ies.ed.gov/ncee/wwc>
- Kintsch, E. (2005). Comprehension theory as a guide for the design of thoughtful questions. *Topics in language disorders*, 25(1), pp. 51–64.
- McKeown, M. G., Beck, I. L., & Blake, R. (2009). Rethinking reading comprehension instruction: A comparison of instruction for strategies and content approaches. *Reading Research Quarterly*, 44, 218–253.
- McMaster, K. L., Fuchs, D., & Fuchs, L. S. (2006). Research on peer-assisted learning strategies: The promise and limitations of peer-mediated instruction. *Reading & Writing Quarterly*, 22, 5–25.
- Nelson, N.W. (2013). Syntax development in the school-age years: Implications for assessment and instruction. *Perspectives on Language and Literacy*, 39, 9–15.
- Oakhill, J., Cain, K., & Elbro, C. (2015). *Understanding and teaching reading comprehension: A handbook*. New York: Routledge.
- Scarborough, H. S. (2005). Developmental relationships between language and reading: Reconciling a beautiful hypothesis with some ugly facts. In H. W. Catts & A. Kamhi (Eds.), *The connections between language and reading disabilities* (pp. 3–24). Mahwah, NJ: Erlbaum.
- Scott, C. M. (2009). A case for the sentence in reading comprehension. *Language, Speech, and Hearing Services in the Schools*, 40(2), 184–191.
- Shanahan, T., Callison, K., Carriere, C., Duke, N. K., Pearson, P D., Schatschneider, C., & Torgesen, J. (2010). *Improving reading comprehension in kindergarten through 3<sup>rd</sup> grade: A practice guide* (NCEE 2010-4038). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Shankweiler, D., Lundquist, E., Katz, L., Stuebing, K. K., Fletcher, J. M., Brady, S., et al. (1999). Comprehension and decoding: Patterns of association in children with reading difficulties. *Scientific Studies of Reading*, 31, 24–35, 69–94.
- Stahl, K. A. D. (2004). Proof, practice, and promise: Comprehension strategy instruction in the primary grades. *The Reading Teacher*, 57, 598–609.
- Westby, C. (2004). A language perspective on executive functioning, metacognition, and self-regulation in reading. In C. A. Stone, E. R. Silliman, B. J. Ehren, & K. Apel (Eds.), *Handbook of language and literacy: Development and disorders* (pp. 398–427). New York: Guilford Press.
- Williams, J. P. (2006). Stories, studies, and suggestions about reading. *Scientific studies of reading*, 10(2), 121–142.
- Willingham, D. T. (2006). How knowledge helps: It speeds and strengthens reading comprehension, learning,

and thinking. *American Educator*, 30(1), 30–37.

Willingham, D. T. (2006-07). The usefulness of brief instruction in reading comprehension strategies. *American Educator*, 30(4), 39–45.

## **STANDARD 4, Substandard G: Structured Literacy Instruction—Written Expression**

Just as teachers need to understand the component abilities that contribute to reading comprehension, they also need a componential view of written expression. Important component abilities in writing include basic writing (transcription) skills, such as handwriting, keyboarding, spelling, capitalization, punctuation, and grammatical sentence structure; text generation (composition) processes that involve translating ideas into language, such as appropriate word choice, writing clear sentences, and developing an idea across multiple sentences and paragraphs; and planning, revision, and editing processes. Teachers should understand how, similar to the relationship between reading fluency and reading comprehension, weaknesses in basic writing skills, such as spelling and handwriting, may drain students' abilities and motivation to write. Also, just as in the case of reading, explicit and systematic teaching of important components of writing as part of general education instruction can help prevent or ameliorate many children's writing difficulties. Effective intervention in written expression depends on pinpointing an individual student's specific weaknesses in different component areas of writing and on teachers' abilities to provide explicit, systematic teaching in each area. For instance, a student whose writing difficulties revolve around basic writing skills, such as spelling, will require a different type of intervention than one who has strong foundational writing skills but struggles with text generation processes, such as clarity and word choice. In addition to using assessments to help target individual students' writing weaknesses, both general and special educators should be able to teach research-based strategies in written expression, such as those involving strategies for planning and revising compositions, and they should understand the utility of multisensory methods in both handwriting and spelling instruction. Assistive technology can be especially helpful for students with writing difficulties, especially as they advance into the middle and upper grades and the demands for writing escalate. Teachers should also recognize the appropriate uses of technology in writing (e.g., spell-checkers can be valuable, but do not replace spelling instruction and have limited utility for students whose misspellings are not recognizable). Specialists should have even greater levels of knowledge about technology.

Berninger, V. W., & Wolf, B. J. (2016). *Dyslexia, dysgraphia, OWL LD, and dyscalculia: Lessons from science and teaching (2nd ed.)*. Baltimore: Brookes Publishing.

Edwards, L. (2003). Writing instruction in kindergarten: Examining an emerging area of research for children with writing and reading difficulties. *Journal of Learning Disabilities*, 36, 136.

Englert, C. S., Wu, X., & Zhao, Y. (2005). Cognitive tools for writing: Scaffolding the performance of students through technology. *Learning Disabilities Research & Practice*, 20, 184–198.

Gersten, R., & Baker, S. (2001). Teaching expressive writing to students with learning disabilities: A meta-analysis. *Elementary School Journal*, 101, 251–272.

Gilbert, J., & Graham, S. (2010). Teaching writing to elementary students in grades 4–6: A national survey. *Elementary School Journal*, 110(4), 494–518.

Graham, S., & Hebert, M. (2010). *Writing to read: Evidence for how writing can improve reading*. New York, NY: Carnegie Corporation, Alliance for Excellent Education.

Graham, S., McArthur, C.A., & Fitzgerald, J. (Eds.). (2007). *Best practices in writing instruction*. New York: Guilford Press.

Graham, S., & Perin, D. (2007). *Writing next: Effective strategies to improve writing of adolescents in middle and high schools – A report to Carnegie Corporation of New York*. Washington, DC: Alliance for Excellent Education.

- Hecker, L., & Engstrom, E. U. (2011). Technology that supports literacy instruction and learning. In J. Birsh (Ed.). *Multisensory teaching of basic language skills, (3rd ed.)* (pp. 657–683). Baltimore, MD: Brookes Publishing.
- Joshi, M., Treiman, R., Carreker, S., & Moats, L. C. (2008/2009) How words cast their spell: Spelling is an integral part of learning the language, not a matter of memorization. *American Educator, 32*(4), 6–16, 42–43.
- Masterson, J. J., & Apel, K. (2010). Linking characteristics discovered in spelling assessment to intervention goals and methods. *Learning Disabilities Quarterly, 33*(3), 185–198.
- Moats, L. C. (Winter 2005/06). How spelling supports reading: And why it is more regular and predictable than you think. *American Educator, 12–22*, 42–43.
- Spear-Swerling, L., & Zibulsky, J. (2014). Making time for literacy: Teacher knowledge and time allocation in instructional planning. *Reading and Writing: An Interdisciplinary Journal, 27*(8), 1353–1378.
- Troia, G. (Ed.). (2009) *Instruction and assessment for struggling writers: Evidence-based practices*. New York: Guilford Press.
- Wolf, B. (2011). Teaching handwriting. In J. R. Birsh (Ed.). *Multisensory teaching of basic language skills (3rd ed., pp 179–206)*. Baltimore, MD: Brookes Publishing.

## Glossary

<b>academic vocabulary</b>	words traditionally used in academic dialogue and text
<b>accuracy</b>	ability to recognize words correctly
<b>alphabetic principle</b>	ability to associate sounds with letters and use those sounds to form words
<b>automaticity</b>	ability to perform a skill easily with little attention, effort, or conscious awareness
<b>background knowledge</b>	connections formed between the text and the prior knowledge and experiences of the reader
<b>benchmark</b>	pre-determined level of performance on a screening test that is considered representative of proficiency or mastery of a certain set of skills
<b>classification accuracy</b>	extent to which a screening tool is able to accurately classify students into “at risk” and “not at risk” categories
<b>connected text</b>	words that are linked as in sentences, phrases, and paragraphs
<b>controlled text</b>	reading materials in which a high percentage of words can be identified using their most common sounds and use sound-letter correspondences that students have been taught
<b>cumulative instruction</b>	approach that builds upon previously learned concepts
<b>decoding</b>	process of using sound-letter correspondences to sound out words or nonsense words
<b>encoding</b>	process of using sound-letter correspondences to spell
<b>explicit instruction</b>	direct (modeled), structured, systematic approach to teaching that includes both instructional design and delivery procedures
<b>expressive language</b>	language that is spoken
<b>fidelity of implementation</b>	degree to which instruction follows the intent and design of the program
<b>fluency</b>	ability to read a text accurately, quickly, and with proper expression and comprehension
<b>grapheme</b>	letter or letter combination that corresponds to a single phoneme
<b>guided practice</b>	approach in which students practice newly learned skills with the teacher providing prompts and feedback
<b>high frequency words IQ-discrepancy approach</b>	small group of words (300-500) that account for a large percentage of the words in print model assessing whether there is a significant difference between a student’s scores on a test of general intelligence and scores obtained on an achievement test; also called severe discrepancy model
<b>metacognitive skills</b>	strategies that help students to “think about their thinking” before, during, and after they read
<b>nonsense words</b>	pronounceable letter patterns that are not real words; also called pseudowords
<b>norm</b>	standard of performance on a test that is derived by administering the test to a large sample of students
<b>morpheme</b>	smallest meaningful unit of a language

<b>morphology</b>	study of words, how they are formed, and their relationship to other words in the same language
<b>onset-rime awareness</b>	awareness of the two separate elements in syllables, the consonant sounds before the vowel sound (onset) and the vowel sound and any consonant sounds that follow (rime); a subcategory of phonological awareness
<b>orthographic processing</b>	use of the visual system to form, store, and recall words
<b>orthography</b>	conventional spelling system/writing system of a language
<b>phoneme</b>	smallest unit of sound within spoken words
<b>phonemic awareness</b>	awareness of individual sounds/phonemes in spoken words; a subcategory of phonological awareness
<b>phonics</b>	system for approaching reading by focusing on sound-letter correspondence
<b>phonological awareness</b>	awareness of sounds in spoken words including syllables, onset-rimes and individual phonemes
<b>phonological processing</b>	use of the sounds of one's language to process spoken and written language
<b>phonology</b>	study of how sounds are organized and used in natural languages
<b>prosody</b>	reading with expression, proper intonation, and phrasing
<b>rapid automatized naming</b>	quickly accessing presumably rote information (numbers, letters, colors, objects); also called rapid naming
<b>receptive language</b>	language that is heard
<b>reliability</b>	consistency with which a tool classifies students from one administration to the next
<b>scope and sequence</b>	blueprint that provides an overall outline of an instructional program including the range of teaching content and the order or sequence in which it is taught
<b>semantics</b>	study of the meaning of morphemes, words, phrases and sentences
<b>sight word</b>	word immediately recognized "on sight" regardless of whether it is phonically regular or irregular
<b>sound-letter identification</b>	a phoneme (sound) associated with a letter or letters (grapheme); also called sound-letter correspondence
<b>syllable</b>	word part that contains a vowel sound in spoken language
<b>syllabication</b>	act of breaking words into syllables
<b>syntax</b>	way in which words are put together to form phrases, clauses, or sentences
<b>validity</b>	extent to which a tool accurately measures the underlying construct that it is intended to measure

Adopted from the NJ Dyslexia Handbook <https://www.state.nj.us/education/specialed/dyslexia/NJDyslexiaHandbook.pdf>

## Resources and References

Mississippi Department of Education. (2010). 2010 Mississippi Best Practices Dyslexia Handbook. Jackson, MS.

New Mexico Public Education Department. (2020). Technical Evaluation and Assessment Manual: Identification of Dyslexia.

Texas Education Agency. (2018). The Dyslexia Handbook: Procedures Concerning Dyslexia and Related Disorders. Austin, TX.

An Explanation of Structured Literacy and a Comparison to Balanced Literacy <https://iowareadingresearch.org/blog/structured-and-balanced-literacy>

At a Loss for Words How a Flawed Idea is Teaching Millions of Kids to be Poor Readers <https://www.apmreports.org/story/2019/08/22/whats-wrong-how-schools-teach-reading>

Experts say widely used reading curriculum is failing kids <https://www.apmreports.org/story/2020/01/27/lucy-calkins-reading-materials-review>

Getting Reading Right <https://www.edweek.org/ew/projects/getting-reading-right.html>

International Dyslexia Association: Effective Reading Instruction for Students with Dyslexia <https://dyslexiaida.org/effective-reading-instruction-for-students-with-dyslexia/>

International Dyslexia Association: Dyslexia in the Classroom, What Every Teacher Needs to Know <https://dyslexiaida.org/dyslexia-in-the-classroom/>

International Dyslexia Association: Knowledge and Practice Standards for Teachers of Reading <https://dyslexiaida.org/knowledge-and-practices/>

International Dyslexia Association: Most Reading Difficulties can be Resolved or Diminished <https://dyslexiaida.org/most-reading-difficulties-can-be-resolved-or-diminished/>

National Assessment of Educational Progress (NAEP) Report Card: Reading <https://www.nationsreportcard.gov/reading/nation/achievement/?grade=4>

The New Jersey Dyslexia Handbook A Guide to Early Literacy Development & Reading Struggles <https://www.state.nj.us/education/specialed/dyslexia/NJDyslexiaHandbook.pdf>

International Dyslexia Association Structured Literacy Brief <https://app.box.com/s/mvuvhel6qaj8tghvu1nl75i0ndnlp0yz>

Structured Literacy and Typical Literacy Practices Louise Spear-Swerling <https://www.readingrockets.org/content/pdfs/structured-literacy.pdf>

Why A Structured Phonics Program is Effective

<https://achievethecore.org/aligned/wp-content/uploads/2017/03/Why-a-Structured-Phonics-Program-is-Effective.pdf>

Reading Rockets: All (Compelation of Dyslexia Articles )

<https://www.readingrockets.org/atoz/1124/all>

Dyslexia: Beyond the Myth

<https://www.readingrockets.org/article/dyslexia-beyond-myth>

Dyslexia and the Brain What Does Current Research Tell Us

<https://www.readingrockets.org/article/dyslexia-and-brain-what-does-current-research-tell-us>

Structured Literacy and Typical Literacy Practices

Understanding Differences to Create Instructional Opportunities

<https://www.readingrockets.org/content/pdfs/structured-literacy.pdf>

Yale Center for Dyslexia

<https://www.dyslexia.yale.edu/>

The Nation's Report Card

<http://www.nationsreportcard.gov/>

Literacy Statistics

<http://begintoread.com/>